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ANNUAL REPORT

UPON THE

HEALTH

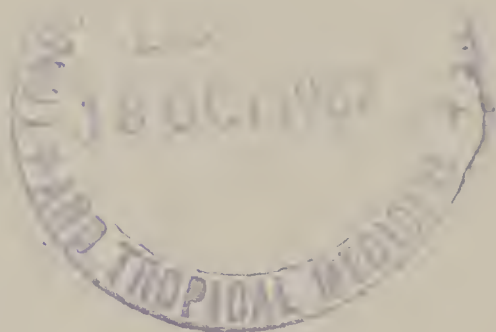
OF

WOLVERHAMPTON

FOR THE YEAR

1931.

66076



ANNUAL REPORT

UPON THE

Health of Wolverhampton


For the Year

1931

BY

R. H. H. JOLLY

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(London); Medical Officer of Health, County
Borough of Wolverhampton; Fellow of the
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PUBLIC HEALTH OFFICERS.

(A) MEDICAL.

Medical Officer of Health ...	R. H. H. JOLLY, M.D., B.S., (Lond.) D.P.H.
Deputy Medical Officer of Health	R. W. ELDRIDGE, M.D., B.Sc., D.P.H.
Assistant Medical Officer (M. & C.W.)	(Mrs.) C. J. J. WINTER, M.B., Ch.B. (Resigned March, 1931) CHRISTINA GRANT, M.B., Ch.B., D.P.H. (Commenced September, 1931).
Consulting Orthopædic Surgeon	E. A. FREEMAN, M.B., B.S., F.R.C.S., (Eng.)
Consulting Surgeon to Borough Hospital	C. V. PATRICK, F.R.C.S. (Eng.), M.B., B.Ch., (Camb.)
Consulting Obstetrician ...	S. W. MASLEN-JONES, M.S. (Lond.), F.R.C.S. (Eng.)
Public Vaccinators (and District Medical Officers)	* T. P. O'LOUGHLIN, L.R.C.P., I. and L.M., L.R.C.S. I. and L.M. * F. R. BYRNE QUINN, L.R.C.P., L.R.C.S. (Ed.), L.R.F.P.S. (Glas.)

(B) OTHERS.

Vaccination Officers	* G. TAYLOR, * H. PENN.
Analyst	* A. E. JOHNSON, B.Sc., F.I.C., A.R.C.S.I.
Veterinary Inspector	* J. E. CARTWRIGHT, M.R.C.V.S.
Chief Sanitary Inspector ...	† J. PEERS.
Meat Inspector	† A. DICKIN.
Inspector under the Sale of Food and Drugs Act ...	† G. A. REEMAN.
Inspector for Factories and Workshops, and Inspector under the Rag Flock Act ...	† E. R. BROCK.
District Sanitary Inspectors ...	† F. W. DUNSTAN. † H. MATTHEWS. † L. A. STROUD. † J. FINERON. † G. H. CHAMPION. † R. S. PORTER. † L. M. BOOTH.
Clerks	J. J. MORRIS. S. MONKS. Miss N. W. HUGHES. F. SMALE. Miss M. D. TAYLOR. F. J. SEALEY. A. HUDSON. R. E. WILLIAMS. L. N. GREGORY. † G. H. BIRCH.
Borough Infectious Hospital ...	Matron: Miss M. BORTON.
Inspector of Midwives	† Miss M. CARTER.
Lady Health Visitors	°† Miss D. E. TONKS. † Miss D. HADLEY. °† Miss H. V. GOODWIN. † Mrs. W. M. HUTT. † Miss B. HIGGS. °† Miss L. G. SWEETMAN. °† Miss A. HOMER. † Miss A. E. MILLER. † Miss L. M. STONE
Orthopædic Nurse	Miss M. G. WADE, C.S.M.M.G. and M.E.
Sales Clerk	Miss P. MEGGITT.
Infant Welfare Clerks	* Mrs. WOODWARD. * Miss TONKS. * Mrs. DALE.

* Part time. † Holder of the Certificate of the Royal Sanitary Institute. ‡ Certified Midwives.
° Holder of the Health Visitors Certificate.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

AREA OF BOROUGH	..	..	..	..	7,105 Acres.
POPULATION (Registrar-General's estimate)	..				134,400
	(Census 1931)	..			133,190
NUMBER OF INHABITED HOUSES (1931)	..				31,500
RATEABLE VALUE	...	...	...	...	£729,560
Sum represented by a Penny Rate	..	..	..		£2,800
		Total	Male	Female	
LIVE BIRTHS	<div> <div> <div>Legitimate</div> <div>-</div> <div>2,217</div> </div> <div> <div>Illegitimate</div> <div>-</div> <div>80</div> </div> </div>	1,104	1,113	BIRTH RATE	17·1
STILL BIRTHS	-	93	46	47	
	Rate per 1,000 Total Births	...	...	...	40·5
DEATHS	...	1,607	806	801	DEATH RATE
					11·9
NATURAL INCREASE OF POPULATION	..				690
	(Excess of births over deaths in the year)				
Deaths from diseases and accidents			From Sepsis	...	1
of pregnancy and childbirth	...		From other causes	...	4
DEATHS OF INFANTS UNDER ONE YEAR PER 1,000 BIRTHS	<div> <div>Legitimate</div> <div>...</div> <div>...</div> </div> <div> <div>Illegitimate</div> <div>...</div> <div>...</div> </div> <div> <div>Total...</div> <div>...</div> <div>...</div> </div>				66 175 69
DEATH RATE from Measles (6)	..	..	..	...	0·05
„	„	Whooping Cough (15)	..	...	0·11
„	„	Diarrhoea and Enteritis (24)			
		(under 2 years per 1,000 births)	...		10·45
„	„	Cancer (176)	..	..	1·31
„	„	Respiratory Tuberculosis (105)	...		0·78
„	„	all forms of Tuberculosis (125)	...		0·93

HEALTH OFFICES,
TOWN HALL,
WOLVERHAMPTON,

April, 1932.

*To the Mayor, Aldermen and Councillors of the
County Borough of Wolverhampton.*

Mr. Mayor, Ladies and Gentlemen,

I have the honour to present to you the Eleventh Annual Report in this series on the state of the public health of Wolverhampton and the various health services of the town.

On the instructions of the Ministry of Health a survey report was submitted last year which contained full information of the hospital and other medical services available in the area, and also dealt at some length with housing defects and the housing position generally. This year's Report follows that of 1930 in its general outline but it has been considerably condensed and shortened by the exclusion of details which were given at some length last year. Where a service has been carried on unchanged the fact has been noted without setting forth the full particulars of the scheme over again. In this way an attempt has been made to curtail the length of the Report this year without interfering with its value to the Council.

Although the various statistics of mortality are not as good as those of last year they are rather better than the ones issued for the whole country. The only exception to this statement is the infant mortality rate which amounts to 69 deaths under one year per thousand births, as compared with 66 for England and Wales. It must, however, be remembered that this rate in Wolverhampton has only been below that of England and Wales on four occasions since 1875 and also that there are still parts of the town where conditions are highly inimical to child life. Until these black spots are swept away one cannot hope for uniformly good records of infant mortality.

VITAL STATISTICS.

Although progress under Parts I and II of the Housing Act, 1930, has not been quite as rapid as was originally anticipated the record of the past year is not unsatisfactory. There was a certain amount of unavoidable delay in the preliminaries connected with the Brickkiln Croft Clearance Scheme and it was not finally approved by the Minister of Health until November 1931. Since that date this scheme has gone forward without a hitch and the majority of the tenants appear likely to be transferred to other houses during the next twelve months. A steady advance is also being made against the individual back-to-back and single houses in the Borough which are now being dealt with at the rate of about ten a month. This section of the activities of the Health Department is such a vital one that it is to be hoped that it will not be necessary to curtail the housing programme submitted at the end of 1930 so far as it relates to unfit houses. Even with the present rate of progress it will take at least ten years to deal with the worst houses on the list, and the longer they remain standing the greater will be the danger to health that they exert on those who have to live in them.

HOUSING.

I desire to take this opportunity of expressing my most sincere thanks to the Chief Sanitary Inspector, Mr. John Peers, who is about to retire from municipal life after 33 years of unremitting zeal and hard work for the Wolverhampton Corporation. During the whole of our association together he has always given me the greatest assistance; his advice and expert knowledge have been most valuable and he has at all times shown himself a most loyal colleague. Those who were familiar with Wolverhampton thirty years ago and have noted the enormous

STAFF.

sanitary progress that has taken place in the town during that time should recognise that Mr. Peers has been very largely responsible for the improved conditions now obtaining. He undoubtedly can contemplate with due satisfaction the abolition of pan closets and waste water closets, the sweeping out of a great many of the worst evils to be found in the courts and back yards of the older quarters of the town, and many similar reforms which he has instigated and carried out. My thanks are due to the Staff of the Department for their loyalty and for the keenness with which they have carried on their various duties during the year. Suitable acknowledgments are made to the Borough Engineer, the Borough Treasurer, the Water Engineer, Sewage Outfall Work's Manager, and the Cleansing Superintendent for certain of the information published in this Report.

Once again I wish to express my indebtedness to the Chairman and Members of the Health and Maternity and Child Welfare Committees for their kind consideration and continued support.

I have the honour to be,

Your obedient servant.

R. H. H. JOLLY,

Medical Officer of Health.

VITAL STATISTICS.

Population.—The actual number of persons recorded by the census for April 1931 was 133,190, which is about 1,000 below the anticipated figure. The Registrar-General has assigned a population of 134,400 as the one on which statistics for the year are to be calculated, and it looks as if he also had evidence to show that the census population was not the true population, but needed some revision. The population of the areas included in the present Borough at the previous census was 121,316, so that the percentage increase in population during the intervening period of $9\frac{3}{4}$ years has been 9·7 %, a very rapid growth. There was a considerable drop in the natural increase of the population during 1931. This was only 690 as compared with 965 in the previous year.

Births.—The total net births for the year was 2,297 as compared with 2,430 in 1930. This gives a birth rate of 17·1 per 1,000 population—a drop of a whole point. The birth rate for England and Wales for the same period was 15·8. There were 120 still births notified during the year (Table XV) but the net number registered was 93. Many women living in outside districts come into Wolverhampton for their confinement. The total illegitimate births were 80.

Deaths.—Although there was no serious epidemic of Influenza in 1931 enough deaths took place from this cause during the first three months of the year to have an appreciable effect on mortality figures. The total deaths in Wolverhampton during the whole year were 1,607, and 505 (32%) of these occurred in the first quarter. The death rate of Wolverhampton for the year was 11·9 per 1,000 population, and that for the whole of England and Wales was 12·3. Table III gives a classified list of the causes of death and full information about the rise and fall in the mortality of individual diseases can be obtained from this. The vital statistics of the various Wards of the town will be found in Table IV. For the fourth year in succession St. James' shows the highest death rate, and also the highest death rate from respiratory diseases and from Tuberculosis. The second highest general death rate and mortality from respiratory diseases is provided by St. Matthew's Ward which, as usual, shares with St. James' Ward this unenviable notoriety. There could be no clearer indication than these figures of the unhealthy conditions obtaining in these two Wards. The Council have already had before them a preliminary report of the bad housing

arrangements which obtain in one area which is common to these Wards, and the vital statistics quoted above only serve to emphasise the necessity for dealing with this area at the earliest possible moment. How can families be expected to be and remain healthy if they are living in dilapidated, worn-out dwellings, so densely crowded together that they number as many as 70 houses to the acre?

The lowest death rates are found in Upper Penn and Bushbury Wards. As it is now five years since greater Wolverhampton came into being and since re-organisation of the Ward boundaries took place, the opportunity has been taken to make a survey of the vital statistics in Wards over the quinquennium and results of this are given in Table V. This Table merely serves to emphasise Table IV and is additional evidence of the persistently high death rate in the older and more congested parts of the town. The birth rate and the various mortality rates in the eastern Wards should be compared with those obtaining in Bushbury Ward in order to get a proper idea of the influence of environment on health. Although Bushbury Ward has one of the highest birth rates in the town its mean infant mortality rate for the five years 1927—1931 is only 56, as compared with 102 in St. Matthew's Ward. Similarly, the deaths from all forms of Tuberculosis in Bushbury work out at 0.69 per thousand as against 1.58 in St. James' Ward.

Infant Mortality.—(Table VII).—For 1930 Wolverhampton's infant mortality was 64 deaths under one year per 1,000 births. For 1931 this figure is 69, and that for the whole of England and Wales is 66. A falling birth rate and a rising infant mortality rate are not statistics which can be recorded with any satisfaction. They must, however, be considered in conjunction with the general economic conditions prevailing at the time; unemployment rife; poverty widespread and a summer remarkable for its excess of rain and absence of sunshine. The legitimate death rate was 66 per 1,000 births and the illegitimate death rate was 175. The illegitimate deaths under one year of age numbered 12 and were distributed as follows:—

Under 1 week	...	2
1—4 weeks	...	2
1—3 months	...	4
3—6 months	...	4

In five cases the certified cause of death was Congenital Debility; in three it was Prematurity. One was due to Syphilis, one to Enteritis, one to Meningitis and one to an accidental fall.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

(a) Local Government Act, 1929 :—

A detailed survey of the services transferred under the above was included in the Report for 1930. No important alterations to these services have taken place during the year and no further consultations have as yet been held with the representatives of voluntary hospitals.

Poor Law Medical Out-relief :—

Beyond the slight revision of the districts of the two part-time District Medical Officers which was mentioned in the last Report, no changes in administration have taken place since the service was transferred.

Institutional Provision for the Care of Mental Defectives :—

The negotiations mentioned last year with regard to part ownership of Great Barr Park Colony have fallen through, and so Wolverhampton has no institution of its own for cases of mental deficiency. At the present time the Corporation have a right to send defectives up to the number of 35 to Great Barr, provided that they are fairly high-grade, but there is no definite provision for the lower grade defectives and these have to be accommodated in any institution in which a vacancy can be obtained, or else are sent to the mental block of the Corporation's Institution at New Cross. This latter arrangement is not particularly satisfactory as the mental block is not adapted for the proper classification of defectives into wards. Another drawback is the shortage of beds for mental cases throughout the county. There are quite a number of insane patients being maintained in the mental wards at New Cross, solely because the Joint Mental Hospitals Board are unable to offer vacancies for them at the present time. It thus happens that juvenile mental defectives and the elderly insane have to be accommodated in the same wards at New Cross. A certain number of defectives are now being sent to the Midland Counties Institution at Knowle, and to other colonies up and down the country.

(b) Public Health Officers of the Authority :—(See list on page 3).

(1) Nursing in the Home :—

(a) General. There is no change from last year.

(b) Infectious Diseases :—

The existing arrangements with the District Nursing Association for the home nursing of Measles, Whooping-Cough and epidemic Diarrhoea have been continued.

(2) Midwives.—(Tables IX and X).—The Corporation have not found it necessary to employ municipal midwives or to subsidise midwives apart from the fact that they will consider an application from a midwife for the payment of her fee when she has been in attendance on a woman who is necessitous. There were 48 midwives who notified their intention to practice in the town during 1931. Of these 16 were trained midwives working in institutions, 30 were trained midwives working independently and 2 were untrained (bona-fide). It was not necessary to report any midwives to the Central Midwives Board during the year for negligence or misconduct but two women were cautioned by the Local Supervising Authority for a breach of the rules of the Board. Notifications of sending for medical assistance were received in 765 cases (percentage of notifications to births attended 35%). Midwives attended 82% of all the births which took place in the town during the year but 23% of these births were notified from institutions at which there is a resident medical officer whose services are available if required. The Corporation paid out the sum of £344 19s. 0d. during 1931 in fees of doctors called in by midwives, and of this amount £111 17s. 3d. was recovered from the patients themselves.

(3) Laboratory Facilities :—(Table VI).—The arrangements mentioned in the last Report continue unchanged.

(4) Legislation in Force.—During the year the Council adopted a fresh Bye-law for good rule and government under which they are empowered to deal with noisy gramophones and loud-speakers.

(5) Hospitals.—In last year's Report it was shown that the total hospital beds available in the area (excluding wards for mental patients) was 808 and that this number, though sufficient for the needs of Wolverhampton itself, were being occupied to a large extent by

patients living outside the Borough. The Wolverhampton hospitals cater not only for the needs of the citizens of the town itself but also for the people living on its borders, and have become centres for medical, surgical and specialist treatment in the south of the County of Stafford. Greater use is now being made of the municipal institution at New Cross as an acute hospital and the number of major surgical operations performed there is steadily increasing each year. At the end of 1931 a scheme was approved for transferring some of the infirm persons occupying beds in New Cross Hospital to certain vacant wards in the House, thus setting free additional beds for the treatment of the sick.

Wolverhampton is also well supplied with special departments attached to these hospitals, and a further development last year was the opening of two additional out-patient clinics at the Royal Hospital, namely, a dermatological clinic and a psychiatric clinic. Additional in-patient beds are still required for orthopaedic cases and a special Infants' and Children's department with in-patient beds and an out-patient clinic is also desirable. Revised arrangements are under consideration for the better co-ordination of the work of the Royal Hospital and the Municipal Hospital.

Maternity and Nursing Homes :—

Number of applications for registration	...	...	1
Number of Homes on the Register	...	...	14
Number of orders made refusing or cancelling registration	...	...	...
Number of appeals against such orders	...	...	Nil
Number of cases in which such orders have been			
(a) confirmed on appeal and (b) disallowed	...		Nil
Number of applications for exemption from registration	...	...	...
Number of cases in which exemption has been			
(a) granted (b) withdrawn (c) refused	...		Nil

All registered premises were visited and the registers and several books inspected as well as the rooms set aside for nursing the patients,

Institutional Provision for Unmarried Mothers :—

No changes in the above have taken place since the last Report. There were 20 maternity cases admitted to the Legge Memorial Home during the year and 17 babies were born there during that time. One baby was stillborn but all the other mothers and babies made satisfactory progress.

Ambulance Facilities :—

- (a) *For Infectious Cases*—1 Motor Ambulance at the Borough Fever Hospital.
- (b) *For Non-Infectious Cases*—1 Police Ambulance, 1 Ambulance at the Royal Hospital and 2 Ambulances at the Municipal Hospital.
- (c) *For Maternity Patients*—The Ambulances at the Royal Hospital and the Municipal Hospital are used.



MATERNITY AND CHILD WELFARE.

Maternal Mortality.—In subsequent pages of this Report reference is made to ante-natal clinics, supply of midwives, consulting obstetricians, maternity beds in hospitals and supplies of milk to expectant and nursing mothers. The Corporation also sell sterilised maternity outfits at cost price, provide Home Helps for domestic assistance during the lying-in period and offer laboratory facilities for the examination of pathological material submitted by doctors. The question of the education of the women themselves in the necessity for ante-natal and post-natal supervision is one which is now receiving special attention. It has been proved by experiment that it is no good opening up a new ante-natal or post-natal clinic and expecting mothers to attend it unless intensive propaganda is carried out beforehand. One can talk to the expectant mothers attending the ante-natal clinic about the importance of one examination after the confinement is over, but the great problem still is how to get midwives, doctors and the women themselves to realise the importance of taking advantage of all the facilities now offered for making childbirth a safe and easy process. Women who have already passed through several confinements successfully without taking any special care beforehand are generally the most difficult to persuade; it is the woman expecting her first baby who is glad to have advice and supervision. The trouble often is that she turns to the wrong people for this advice, and the Maternity and Child Welfare Department do not get in touch with her until the event is over.

Puerperal Fever and Puerperal Pyrexia.—Notifications under the Puerperal Pyrexia and Puerperal Fever Regulations were as follows:—

Puerperal Pyrexia: 37 cases, of which 34 were removed to hospital.

Puerperal Fever: 9 cases, all of which were removed to hospital.

There were no deaths among the notified cases but there was one death from Puerperal Sepsis in a case previously unnotified. The

Corporation's Consulting Obstetric Surgeon was called in on two occasions to cases of Puerperal Pyrexia or Puerperal Fever and on three occasions to emergencies arising through difficult pregnancy or labour. There were four deaths from other diseases or accidents of pregnancy or childbirth in addition to the one from Sepsis. The maternal mortality for the year 1931 was, therefore, 2.18 per 1,000 births, a figure very much lower than the average.

Ante-Natal Clinics.—(Table XI.)—In the beginning of May an Ante-Natal Clinic was opened at the Lower Stafford Street Centre on Wednesday mornings. The expectant mothers in the district had previously had to travel some distance to the Centres at Lea Road or at Heath Town, and it was considered that they needed some provision closer at hand. In the eight months during which it has been open this Clinic has registered 47 new cases and there have been 223 attendances. Although the mean attendance at this Clinic for the whole eight months was only 7 per session, that for the last three months of the year was 10 per session, a clear indication that the women in the district are beginning to appreciate the facilities for consultation and advice that have been provided in their neighbourhood. With the opening of the new Infant Welfare Centre at Park Lane in April the clinic for expectant mothers in that area was automatically transferred to it from the old premises at Heath Town. A total of 4 ante-natal clinic sessions are now being held in the Borough every week, at each of which a lady doctor is in attendance. The total number of new cases during the year was 402 and 1,749 attendances were made. Before the opening of the Lower Stafford Street clinic the attendances at Lea Road were too high for satisfactory working (average attendance in 1930 was 17.1 per session). This figure has now been reduced to 12.4 which still represents a full morning's work for the staff.

Maternity Hospitals.—No change has taken place during the year in the arrangements for admission of cases to maternity homes and hospitals. Unsuitable home conditions are the commonest causes for which cases are recommended from the ante-natal clinics for institutional accommodation during childbirth, and practically all these women now have beds reserved for them at the New Cross Hospital. The number of such cases during 1931 amounted to 57.

Infant Welfare Work.—During the early part of the year this branch of the work was handicapped by illness of the staff, which accounted for the falling off in the visits paid in the South-East district of the town. Some re-arrangement of the Health Visitors' districts was made in May; Miss Hadley transferring to the Heath Town district and Miss Stone replacing her on the East district. Table XIV gives the number of home visits paid by the Health Visitors during the year. Whilst the amount of attendances paid to infants under one year of age may be considered satisfactory the same cannot be said as regards children between two and five years. Many authorities consider that home visitation by nurses is the most important part of Infant Welfare work in Great Britain. It is most efficient when the visits are supplemented by the regular attendance of the children at a Welfare centre for advice and consultation with the Medical Officer. Unfortunately a large number of mothers still cease to bring their children to the clinic when they reach 18 months or 2 years of age, and the limited number of the Health Visitors makes it impossible for them to follow up all these children and keep them under proper supervision in their homes. In a joint circular issued to Local Authorities in December, 1929, the Minister of Health and the Board of Education point out that "it is grossly uneconomic to allow the health and stamina of infants to deteriorate till five years old, and then to spend large sums of money in trying to cure them between five and fifteen. The gap between the Infant Welfare centre and school medical inspection needs to be filled up." This can only be done by increasing the number of the health visiting staff or by getting mothers to bring their infants to the Welfare Centres until they reach school age. The new Infant Welfare centre in Park Lane was formally opened by the Mayoress, on March 30th. These premises replace the centre that used to be held at the old Council Offices, Heath Town, and serve both the Low Hill area and the Heath Town area. At present one clinic for expectant mothers is held here every Friday morning and a clinic for infant consultations is held on Tuesday and Friday afternoons, and on alternate Thursday afternoons, the latter being for new cases only. The total number of new cases registered at this centre during the year 1931 was 416 (excluding expectant mothers) as compared with 352 at the old Heath Town centre during the previous year. From Table XI it will be seen that 1,470 new cases were registered at the various clinics during the year, and that the total number of attendances amounted to 28,515.

The comparison of the attendances of children under one year with children over one year is none too good ; actually there were 16,757 attendances at the Clinic of infants of 12 months and under as compared with 11,758 attendances of children between 1 and 5 years of age. These figures bear out what has been said earlier as to the necessity for filling up the gap in supervision during babyhood and school life.

Supplies of Milk.—Owing to the abnormal state of unemployment, the amount of dried milk supplied free to expectant and nursing mothers and young children steadily increased during the summer months, and it became clear that the estimates of expenditure under this heading would be exceeded unless conditions improved. The machinery for dealing with this issue of milk was carefully overhauled and in certain cases the weekly amount was restricted, as it was found that some children were being over-fed. The whole question of the supply of free milk through the Clinics was given very careful re-consideration by the Committee in October, and it was then decided to recommend the Council not to issue any further supplies of dried milk absolutely free of cost to the recipient, but to impose a nominal charge of threepence per packet. The dried milk stocked by the Department is put up in cartons or tins of 1lb. and $1\frac{1}{4}$ lbs. The former when reconstituted in accordance with the directions makes $5\frac{3}{4}$ pints of cow's milk, and the latter 7 pints. Up to three months of age a 1lb. packet provides the whole of the food necessary for a bottle-fed child for one week, whilst a $1\frac{1}{4}$ lbs. packet is sufficient for a child between 3 and 6 months of age for the same period.

Mothers and babies attending the Clinics who are not eligible for supplies at the above rate are able to purchase it at cost price as heretofore, provided that their circumstances are such that they cannot afford to buy it through the ordinary channels.

Dental Treatment.—(Table XII).—The arrangements described in previous Reports still obtain. There were 418 attendances of patients referred by the Maternity and Child Welfare Department during the year and the Corporation assisted in the provision of artificial dentures to 34 expectant or nursing mothers.

Artificial Sunlight.—Cases deemed likely to benefit from this form of treatment are referred to the Medical Officer of the Light

Department of the Royal Hospital by the Medical Officers at the Infant Welfare Centres and the Orthopædic Clinic. Last year 38 such cases underwent a complete course of this treatment with beneficial results.

Orthopædic Work.—(Table XLIII).—Owing to the sudden death of the consulting Orthopædic Surgeon, early in June, this work received a slight check. One of the members of the surgical staff of the Royal Hospital was good enough to supervise the cases until the appointment of a successor to Mr. Anthony Blackstock. During the year the number of new cases under the age of 5 who were referred to this Clinic from the Infant Welfare Centres was 110. The total attendances were 2,585 and the number of splints and appliances supplied was 43. One child was admitted to the Royal Hospital for operative treatment.

Adoption Orders.—Reports were supplied to the magistrates in connection with 9 infants, and in each case an order was made and the Maternity and Child Welfare Committee was appointed guardian *ad litem* of the infant.

Boarded-out Children.—Each Health Visitor is the appointed Infant Life Protection Visitor for her own district and keeps a special card for each house in respect of which notice has been given as required under Part I of the Children Act 1908. If the particulars of inspection are satisfactory a brief summary of the contents of the Act is supplied to the foster-mother, together with a form, on which she can make written notification to the Local Authority of the death or removal of a child. At the end of the year 1931 there were 19 foster-parents and 25 children on the register. No action was necessary by the Local Authority in regard to unsuitable premises or unsatisfactory foster-parents or other matters defined in Sections 3 and 6 of the Act. No children died during the year whilst they were being boarded out.

Propaganda.—No mass propaganda was carried out during the year, but numerous evening meetings for mothers and for fathers were held at the various Infant Welfare Centres, and notably at Ward Street and at Park Lane. The films shown by means of the portable projector belonging to the Department included the following:—

“The Uncharted Sea.”

“Cleanliness is Happiness.”

“Dirty Bertie.”

SANITARY CIRCUMSTANCES OF THE AREA.

Meteorology.—(Table I).—The mean rainfall for the year was 32·67 inches which was 5·05 in excess of the average for the past 35 years, and only 1·57 inches below that recorded for 1930 (34·24 inches). August was by far the wettest month of the year, with 5·55 inches of rain, but the amount of precipitation in May and June was also excessive. The two driest months of the year were March (0·17 inches of rain) and December (0·76 inches of rain). Apart from its high rainfall the marked feature of the year was the almost entire absence of really warm weather during the summer months. In January an abnormal degree of fog was experienced, whilst the latter part of February proved to be exceptional by reason of the extraordinarily high night temperatures. The minimum temperature during the year was registered on October 22nd (14·5° of frost).

Water.—The new station at Dimmingsdale is now nearing completion. The Water Engineer states that the supply of water during the year has been quite satisfactory in quantity, that there has been no anxiety on account of drought or other causes, and that it has been unnecessary to take action in respect of any form of contamination of the supply other than the routine operation of filtering and sterilisation at the supply works. Chemical and bacteriological analyses of the water are carried out each month, and a summary of the results is as follows :—

				Parts per 100,000
Total Solid Matter, dried at 212°F	...	...	...	32·861
Free and Saline Ammonia	...	...	...	·001
Albuminoid Ammonia	...	...	...	·005
Nitric Nitrogen	...	...	...	·202
Chlorine	...	...	...	2·227
Oxygen absorbed in 4 hours at 80°F	...	...	...	·059
Appearance	...	...	...	Clear
Colour through 2 feet	...	...	Pale greenish tinge	
Hardness before boiling	...	...	...	13·7°
Hardness after boiling	...	...	...	6·5°
Temporary hardness	...	...	...	7·1°
BACTERIOLOGICAL EXAMINATION.				Organisms per c.c.
On Gelatin at 20°C	...	...	...	27
On agar-agar at 37°C	...	...	...	9
B. Coli absent in 100 C.C.				

It should be noted that the Colon Bacillus was absent from 100 c.c. of the water in each of the routine examinations made during the year.

Rivers, Streams, Drains and Sewers.—The Borough Engineer has kindly supplied me with the following report :—

“No specific action has been taken *re* the pollution of streams in the area. Pollution has taken place, the offenders have been traced and informed that they must cease pollution. The foul sewers have been extended in Bilston Street, Fold Street and Finchfield Road. A new sewer has been laid in Rookery Lane. New storm sewers have been laid in Trysull Road, Bhylls Lane and part of Finchfield Lane. Widening of the Smestow Brook has been commenced and it is hoped to carry on with this work during the coming year. A new culvert has been constructed at Hordern Road to relieve flooding.”

As regards the Sewage Disposal Works the Manager has supplied me with the following details :—

“The constructional work on the new scheme of sewage disposal was begun in May, 1930. The detritus tanks have been in use for some time. The new primary sedimentation tanks are in course of construction. Eight sludge digestion tanks are almost completed and some eight acres of sludge drying beds are nearing completion. The construction of seven humus tanks is well in hand, and the main effluent conduit is ready for use. The contract for the supply of filter medium has been let and work on the construction of the six acres of filter beds is in progress. Excavation for the new stormwater tanks has been recently started. Meanwhile the bio-aeration plant continues to treat nearly one half of the sewage, the remainder receiving land treatment.”

Closest Accommodation.—Great credit is due to the Chief Sanitary Inspector and his staff for the way in which the Corporation's Waste Water Closet Conversion Scheme has been pushed forward during the past year. At one time it was hoped that this scheme would have been completed by the end of 1931 but actually there were still a few score of Waste Water Closets not dealt with by this date. Altogether there have been 1,260 conversions carried out during the twelve months, and only in a very few cases was it necessary for the Corporation to do the work in the owner's default. There is a discrepancy between the number of W.W.C's. remaining in the Borough on December 31st, 1930 (as stated in the previous Report) and the number completed during the year 1931 plus the number still outstanding. In explanation of this it must be stated that the earlier figure (999) was obtained by deducting the number of closets converted during the progress of the scheme from the number reported to be in

existence in 1925 (as revised at the extension of the Borough in 1927 . It has now been found that some hundreds of W.W.C's. were omitted from the original return which accounts for the increased number that have had to be dealt with. On December 31st, 1931, the numbers of the various sanitary conveniences other than water closets in use in the Borough were given as follows:—

Privy Middens	...	...	10
Cess Pools	...	...	55
Pail Closets	...	...	157*
Waste Water Closets	...	...	74

Scavenging.—The refuse collection from the houses and the sweeping and tidying of the streets are both undertaken by the Corporation. There is a weekly collection of refuse from the majority of dwelling houses, but in some of the poorer quarters it is more frequent than this. Since April, 1929, the ownership of all the ashbins in use in the Borough in connection with private dwelling houses has been vested in the Corporation. Owing to the poor quality of many of the bins taken over on the above date the replacement rate has been rather high. During the first two-and-three-quarter years that this scheme has been in force 15,000 worn-out and dilapidated bins have had to be replaced by new ones. The annual amount payable by the householder for dustbin maintenance has again been reduced and now stands at 1/6 per bin. It would appear desirable for the department concerned with the maintenance of these bins to consider the question of setting up a repair depot for ashbins. It is possible that a considerable number of the bins condemned might be rendered fit for several years' further service at a small cost. It may, at any rate, be assumed that all the poorest and cheapest types of portable ash receptacles have now been replaced by ones of an approved size and weight, and that the remainder of those taken over were good quality bins when supplied, and therefore likely to have a fairly long life. Reference has been made in previous reports to the need for the provision of dustless loading refuse carts as soon as financial circumstances will permit of the change.

The conversion of shovel-up ashpits into receptacles for bins was continued during the year and a total of 549 shovel-ups were dealt with in this way. The relative number of ashbins and ashpits in the Borough at the end of December, 1931, is given as follows:—

* Includes 15 temporary Pail Closets.

Ash Bins ...	...	...	30,796
Open Ash Pits	...	...	5
Shovel-ups	...	...	1,050
Miscellaneous	...	...	100

In addition to the removal of house refuse the Cleansing Department also undertakes the emptying of pail closets and privy middens. These latter are only permitted in situations where no sewer or water supply is available. The emptying of cesspools is carried out by the Cleansing Department. During the year several new houses were approved in situations where no sewer was available and in these cases it was necessary to instal a small cesspool for the house drainage.

Sanitary Inspection of the Area.—The usual summary of the work of the examining officer under the Canal Boats' Acts appears in Table XVI; that of the Workshops' Inspector in Table XVII; whilst the particulars required under Article XIX of the Sanitary Officers' Order, 1926, will be found in Tables XVIII to XXI. Dealing generally with these tables it may be said that the work of inspection and examination has been carried out with care and thoroughness and that all complaints received have been given full and immediate investigation. The total inspections made by the sanitary staff amount to 51,655 as compared with 50,531 in the previous year.

Smoke Abatement.—Wolverhampton is represented on the Midland Joint Advisory Committee for Smoke Abatement. Early in the year the Executive Committee of this body made enquiries from the Wolverhampton Technical School as to its willingness to institute classes for stokers. A reply was received that the arrangement of technical classes for this purpose would be considered provided that there was adequate effective demand for them. Unfortunately this demand has not yet materialised but the matter is not being allowed to drop.

The District Inspectors made 131 half-hour observations of factory chimneys in their own areas during the year. No prosecutions have to be recorded in 1931 but the Corporation gave authority for the institution of any necessary legal proceedings to obtain the abatement of a smoke nuisance reported at the end of the year. The nature and amount of deposited atmospheric impurity as recorded by the deposit gauge in the centre of the town are given in tabular form on page 54. The total annual deposit of insoluble material was 155·23 tons per square mile of which 115·31 tons was ash. The deposit of soluble

matter during the same period was 33·75 tons per square mile. Taking the area of the Borough as nearly 10 square miles, these figures represent a total deposit of tar, ash, carbon, sulphates, chlorides, etc., amounting to 1,890 tons over the town during the year. In comparison with the other constituents the ash content is rather high and compares somewhat unfavourably with that recorded in other industrial towns of similar size and character. The slight fall noted in the amount of soluble matter this year as compared with last is no doubt due to the difference in the rainfall.

Offensive Trades.—The following is the list of Offensive Trades established in the town:—

	DISTRICTS.						
	N.W.	W.	S.W.	N.E.	E.	S.E.	TOTAL
Bone Boilers ... ..	...	1	...	...	...	...	1
Gut Scrapers	2	...	...	...	...	...	2
Hide and Skin Dealers	...	...	...	...	...	2	2
Rag and Bone Dealers	...	1	...	...	..	1	2
Tripe Boilers	1	1	6	...	2	...	10
Fish Friers	14	13	21	15	14	24	101
Fat Melters	1	1	...	...	1	...	3
TOTAL	18	17	27	15	17	27	121

No action was necessary during the year under the Bye-laws covering these several trades.

The Corporation granted 4 fresh sanctions for Fish Frying and refused 16.

Lodging Houses.—The six common lodging-houses are all maintained in a satisfactory condition.

There are very few premises in Wolverhampton which are suitable for letting as an apartment house or houses-let-in-lodgings. A certain number of old houses are let for two, three or four different families but the greatest difficulty experienced by the Health Department is in connection with the sub-letting of one or two rooms in a house to another family. Bye-laws to control or restrict this class of lodgings would be very helpful.

Tents, Vans and Sheds.—From time to time Caravans are discovered in back-yards in the centre of the town, most commonly during the winter months. These cases are all dealt with under Section 56 of the Wolverhampton Corporation Act 1928. In almost every instance formal intimation of the requirements of this section to the landlord and the occupier of the van is sufficient to bring about the removal of the van.

Schools.—Extensive alterations in the sanitary accommodation at the elementary schools have been called for to meet the requirements of altered age and sex distribution in the various departments. In some cases desirable improvements have been suspended temporarily because of the restrictions in building resulting from the urgent need for national economy. The policy of replacing trough closets with up-to-date sanitary conveniences was continued last year and 7 additional schools were equipped with modern wash-down pedestal closets in place of the former. In several schools structural improvements and extensions have been effected with resulting improvement in light, ventilation and air-space.

A further inspection of the Private Schools in the Borough has recently been carried out. Although their hygienic and sanitary conditions are better than they were four years ago there is still room for considerable improvement in some of the smaller ones.

Rag Flock Acts.—Rag Flock is not manufactured in the town but it is used by certain manufacturers and upholsterers. There were 10 samples of rag flock taken and submitted for analysis during the year and all of them were reported as complying with the requirements of the Act.

Cleansing and Disinfection.—Particulars of disinfection of premises, bedding, etc., are given in Table XXXII. These disinfections have been carried out after the occurrence of infectious disease or Tuberculosis in the house. The Corporation do not possess a cleansing station. The duties of the Council under the Rats and Mice (Destruction) Act 1919 are carried out by the Cleansing Committee. Numerous cases of rat infestation, some of a serious nature at schools, were reported and dealt with successfully.

HOUSING.—(Table XXIII).

As a very full statement of the housing conditions of Wolverhampton was given in the Report for 1930 it will not be necessary to cover the same ground again.

(a) **Unfit Houses.**—The provisions of the Housing Act of 1930, which were not generally utilised until 1931, have introduced certain new principles, the most important of which is the provision of re-housing facilities for families displaced from individual unfit houses requiring demolition. A list of the worst houses in the town, excluding those situated in areas which might subsequently be represented as clearance or improvement areas, was drawn up and from 10 to 12 such houses were carefully inspected each month and then formally reported to the Council under Section 19 of the Act. Owing to certain difficulties connected with the purchase of land for re-housing purposes the provision of new houses lagged behind the official representations and so it came about that at the end of the year there was a considerable number of unfit houses awaiting demolition orders but the orders could not be served because the new houses were not ready. By the end of December 10 new three-bedroomed houses had been completed for this purpose and a further 42 were in course of erection. Demolition orders had been made in respect of 44 houses and a further 12 notices had either been served or were awaiting service.

No action has yet been taken under Section 17 of the Housing Act 1930 as it has been decided to concentrate attention in the first place on those houses which are incapable at a reasonable expense of being rendered fit, e.g. back-to-back houses, single houses, houses in courts without adequate light or ventilation, etc.

(b) **Unhealthy Areas.**—The first clearance area to be represented under Part I of the Housing Act 1930 was the Brickkiln Croft area. It will be remembered that this area had already been the subject of a local enquiry by the Ministry of Health in July 1927 when it was proposed to deal with it under Part II of the Housing Act 1925. A second local enquiry was held in July 1931, and an official approval to the scheme was received in November. The revised area included 158 dwelling-houses and 6 works in Salop Street, Peel Street, Gt. Brickkiln Street, Brook Street, Art Street and Brickkiln Croft, to which were

added three properties in Salop Street for the purposes of rendering the scheme efficient. The total area included in the scheme was 18,118 sq. yards and the total population of the area was 737 persons. The Ministry of Health, in passing the scheme, ruled that 13 of the properties there did not come within the terms of Section 1 of the Act and that full compensation would have to be paid in respect of them.

A site has been acquired by the Corporation in Bushbury Ward for re-housing purposes and tenders for the erection thereon of 70 three-bedroomed houses and 50 two-bedroomed houses were accepted in September. It is intended that 78 of these houses shall be available for families displaced from the Brickkiln Croft area and the remainder for families displaced from the individual unfit houses mentioned above. (The total re-housing programme for the Brickkiln Croft area is 104 three-bedroomed houses and 54 two-bedroomed houses).

Overcrowding.—Little can be added to what has previously been said with reference to this evil. The operation of the Rent Restriction Act has “frozen” many families in the houses which they occupied when they were newly married and for which they paid a rental of about 5/6 a week. If they do leave because additional bedroom accommodation is needed for their family they have the alternatives of applying for a municipal house at a rental (including rates) of approximately 8/9 with a basic charge of one shilling a week for electric light over and above this, or a decontrolled house, devoid of modern accessories, for which a rent of anything from 10/- upwards will be asked. In the days before the war a workman used to calculate the rent he could afford as being approximately one-sixth of his income or, as he put it, he worked one day a week for his landlord. At the present time—partly owing to the increased cost of materials and labour, and partly because of the better standard of housing that is (quite rightly) demanded—the old ratio of rent to income has been altered.

There were 145 cases of overcrowding reported by the Health Department during the year, and 180 statutory or other notices were served on the several persons and families concerned in this overcrowding. Of these 120 were remedied upon service of notice, 14 were abated as the result of Police Court proceedings, and 46 were still outstanding at the end of the year.

INSPECTION AND SUPERVISION OF FOOD.

(a) **Milk Supply.**—There are only 21 dairy farms within the Borough and these are all inspected at quarterly intervals by the Corporation's Veterinary Surgeon as well as by the District Inspector for the area. A total of 138 such visits were paid during the year. In one instance it was necessary to caution a milk producer for infringement of the Milk and Dairies Order, 1926. The total number of premises registered as dairies or milkshops is 792 but this includes a large percentage of small general retail shops where only bottled milk

			N.W.	W.	S.W.	N.E.	E.	S.E.	TOTAL
Cowsheds	...	...	4	1	3	5	8	...	21
Dairies	...	...	...	5	3	15	...	12	35
Milkshops	...	...	113	87	166	98	83	210	757
TOTAL			117	93	172	118	91	222	813

is sold. The District Inspectors made 2,188 visits of inspection and re-inspection of these premises. Prior to registration of any premises a special visit is paid and a report furnished. It was not necessary to refuse or to cancel registration in any case during the year. At the end of 1931 the following licences were in force under the Milk (Special Designations) Order, 1926 :

Certified Milk :

Grade " A " (T.T.) Milk :	Retailers	2	
Grade " A " Milk :	Retailers	28	Supplementary 10
Pasteurised Milk :	Retailers	4	Supplementary 1

Routine samples of all milks sold under the above Order are taken from time to time and submitted to bacteriological examination, as well as occasional samples of ordinary raw milk. The results of these analyses and the action taken will be found in Tables 24-27. Twelve samples of milk were examined by inoculation for the presence of living tubercle bacilli, and one (or 8·3%) was reported as positive. In the positive case the retailer was informed of the result as also was the licensing authority of the area to which the producer belonged.

(b) **Meat and Other Foods.**—There is one Meat Inspector employed whole-time at the Municipal Abattoir and a summary of his work will be found on page 61. Each District Inspector continues to supervise the private slaughterhouses in his own area and the total inspections for this purpose in 1931 were 2,462. It should be added that there are now only 18 private slaughterhouses licensed for use in the Borough and one of these is very little used. Full reference to the agreement with the butchers as to the closures of private slaughterhouses will be found in last year's Report.

Another trade which is subjected to very careful supervision is that of baker and pastrycook. There were 758 visits of inspection paid to premises of this nature during the year, and various small omissions were reported which were at once put right on communicating with the occupier. Generally speaking the operation of these businesses is satisfactory. It is a pity that there is not a greater demand for wrapped bread in the town. Apparently people have been so accustomed from their childhood to see loaves of bread handled and dealt with as if they were potatoes or lumps of coal that they fail to perceive that anything is wrong with this unhygienic practice.

Special attention is being directed to the conditions under which ice cream is manufactured in the town. This delicacy is largely composed of milk and is subject to the same risks of contamination as milk. Investigations have shown that much of the ice cream is prepared under unsatisfactory hygienic conditions and the Corporation are now seeking Parliamentary powers to require the registration of all ice cream manufacturers and vendors and to refuse registration or remove from the register such as are unsatisfactory.

(c) **Adulteration—Food and Drugs Adulteration Act, 1928.**—(Tables XXIX and XXX.)—The total number of samples taken for the year under the Food and Drugs (Adulteration) Act, 1928, was 326, of which 19 or 5·8% were reported as non-genuine. This was a considerable decrease on the figure for the previous year. Of the 130 milk samples examined, 12, or a little over 9% were found to be adulterated. In five instances the deficiency was only 6% or less. In none was added water reported to be present. In only two instances were proceedings deemed to be necessary. In the one case

the vendor was fined £4 and £1 17s, 6d. costs. In the other case a successful plea under *Hunt v. Richardson* was raised. While this case remains on the Statute Book it is very difficult to obtain a conviction against a producer for selling milk deficient in fat.

Of the seven samples other than milk reported to be adulterated four were informal samples, the remaining three being repeat official samples. In each case upon representation being made to the vendor the article was withdrawn from sale.

Public Health (Condensed Milk) Regulations, 1923 and 1927.—Three samples were taken under these Regulations and were reported as genuine.

Public Health (Dried Milk) Regulations 1923 and 1927.—Four samples were taken under these regulations and were reported as genuine.

Public Health (Preservatives, etc., in Food) Regulations, 1925 and 1927.—All samples submitted for analysis under the Food and Drugs (Adulteration) Act likely to contain preservatives were examined for the presence of same. In no instance was a contravention of the Regulations reported.

Artificial Cream Act, 1929. - Eight samples of cream were submitted for analysis and found to be genuine.

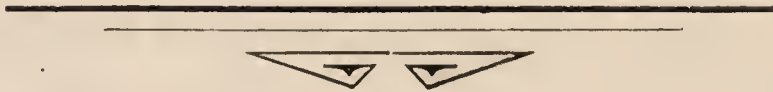
(d) **Merchandise Marks Act, 1926.**—Under this Act Orders in Council have been made dealing with the marking of imported currants, raisins, sultanas, dried eggs, eggs in shell, honey, apples, oat products, tomatoes and frozen or chilled salmon and sea-trout.

A complaint was received that a wholesale dealer was removing the marks from foreign eggs and selling them as English new-laid. A visit was paid to the premises concerned and an employee was found in the act of removing the marks from Danish eggs.

Proceedings were instituted against three persons concerned and a conviction against each was recorded. Fines and costs totalling £16 4s 0d. were imposed.

(e) **Chemical and Bacteriological Examination of Food.**—Chemical examinations of foodstuffs are undertaken by the Public Analyst for the Borough. Bacteriological work in connection with foods is carried out at the Bacteriological Laboratories of the Royal Hospital.

(f) **Nutrition.**—The magazine “Better Health” produced by the Central Council for Health Education has a local circulation of 2,500 copies per month distributed free to various societies and associations interested in adult education as well as to the parents of children attending the Infant Welfare Centres. In addition to the general articles on nutrition appearing in this magazine there have been special pages on this subject contributed to the local edition. Addresses on food topics have also been given by members of the Public Health Staff at various meetings.



**PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND
OTHER DISEASES.—(Tables XXXI—XXXVI.)**

Small Pox.—No cases were reported in the area.

Vaccination.—The following table summarises the extent to which vaccination was carried out in Wolverhampton during 1931.

Total No. of Certificates of Successful primary Vaccina- tions received during the year.	Total No. of Exemptions received during the year.	Total No. of Certificates of Insusceptibility.	No. of Births returned in the Births List Sheets during the year.
740	1614	5	2636

It will be seen that 28% of babies born during the year have been vaccinated as compared with 31% in 1930. No vaccinations were performed by the Medical Officer of Health under the Public Health (Small Pox Prevention) Regulations, 1917.

Scarlet Fever.—The incidence of this disease was 1·52 per 1,000 population, there being 221 cases notified. (The diagnosis was subsequently altered in 7 of these). Of the notified cases 208 were removed to the Isolation Hospital for treatment. Only one death from Scarlet Fever occurred during the year. Return cases of this disease numbered 3 and the interval elapsing between the date of discharge of the patients from Hospital and the date of occurrence of a second case in the house was 6 days, 9 days, and 20 days respectively.

Measles.—Information as to the existence of this disease is mainly derived from the Education Department who forward to the Medical Officer of Health duplicates of the reports supplied by the head teachers as to the absence of any scholars believed to be suffering from an infectious disease. In 1931 particulars of 594 cases of Measles were obtained in this way and the staff of the Health Department visited the homes and ascertained the names of all contacts requiring exclusion from school for quarantine purposes. Measles was fairly prevalent during the early months of the year but very little was heard of in the late summer and autumn. Six deaths from Measles were reported (all of which occurred in children under 6 years of age).

Whooping-Cough.—12 deaths took place as a result of this malady, 5 of which occurred in infants under the age of one year.

Diphtheria.—The number of notified cases of this disease has been steadily increasing since 1927, as will be seen from Table XXXV. After allowing for cases in which the diagnosis was subsequently changed there was a net total of 143 cases of Diphtheria notified during 1931, an increase of 13 over the previous year. Of the total notified cases 161 were removed to Hospital and the remainder were nursed at home. The deaths amounted to 12, 11 of which took place in Hospital. Although the incidence of this disease has more than trebled since 1927 there has been a slight but decided fall in the case of mortality. It should be added that the rise in the incidence of Diphtheria is not peculiar to Wolverhampton but is also reflected in the statistics of the country as a whole. The only way to counteract the increased prevalence of the disease is by active immunization of the more susceptible age groups of the population (*vide infra*).

Diphtheria Immunization.—Passive immunization to Diphtheria can be produced by the injection of a dose of Diphtheria anti-toxin, but the protection conferred on the individual by this means is only transient, and disappears at the end of two or three weeks. Active immunity to the same disease is acquired in one of two ways (a) by recovery from an attack of Diphtheria itself or (b) by having an injection of combined toxoid anti-toxin at three weekly intervals of one week. The injection is small in amount (1 cubic centimetre); it causes no more local or general disturbance of the body than a hypodermic injection of distilled water and it is practically painless—nothing more than the prick of a needle. Immunity produced in this way is somewhat slow in developing—the maximum effect may not be acquired from four to six months, but when once it has developed it is permanent for several years, and will protect a child against Diphtheria throughout his school life. In over 90% of cases the three small injections of toxoid anti-toxin will suffice, but one or two further doses may be necessary in the remaining 7-10%. The necessity for further immunizing injections is determined by means of the Schick test, which is applied about six months after the three routine doses have been given. Although a good deal of preliminary education of parents on this subject had been done prior to 1931 the response up till then had been very small. Last year a more determined effort was made in this direction (1) by setting up immunization clinics at the Infant Welfare Centres (2) by immunizing patients against Diphtheria during their sojourn at the Fever Hospital

while suffering from some other disease, *e.g.* Scarlet Fever (in each class of case the written consent of the parents is first obtained). The result of this campaign is shown in tabular form, as follows :—

		Borough Hospital		Infant Welfare Centres.	TOTALS.
		Staff.	Patients.		
Numbers Immunized		9	326	370	705
Total Number of Diphtheria Prophylactic Injections		30	938	984	1952
Confirmatory Schick Test...	Pos.	...	...	12	12
Six Months Later	Neg.	9	...	151	160
7.5% Schick positive six months after three injections.					

This result is encouraging but a great deal more immunization must be done before any appreciable diminution in the incidence of Diphtheria can be hoped for. Reference has already been made to the considerable increase in the annual number of Diphtheria cases in Wolverhampton since 1927, the majority of which have been in young persons under the age of 14 years. It is these age groups that require to be protected against Diphtheria if the disease is to be controlled. An infectious disease of this nature attains epidemic proportions when there is a sufficient number of susceptible individuals to keep it spreading. Diminish the number of these susceptibles below a certain margin and the epidemic will die out. Protect the children against Diphtheria by active immunization and the outbreaks of this disease, which also involve adults and infants, will cease. It is estimated that about 40% of the most susceptible members of the population, that is children under 14, must be dealt with as a minimum before this result can be brought about.

Enteric Fever.—One case of Typhoid Fever and one case of Paratyphoid Fever were notified ; both were treated in hospital and both made complete recoveries. In each case the infection is believed to have been contracted outside Wolverhampton.

Miscellaneous.—Forty-two cases of Erysipelas were notified, 20 of which were treated in hospital. There were two deaths from this disease.

During the last quarter of the year an outbreak of a malady similar to bacillary Dysentery occurred in an institution in the town. The affection was a highly contagious one and two of the cases proved fatal, but bacteriological examination failed to show the presence of any organism of the Dysentery group. Prompt isolation and the removal of the persons affected were successful in stamping out the epidemic.

Two cases of Encephalitis Lethargica were reported during the year, and both recovered. A further case of this disease was also notified, but subsequently proved to be one of Tuberculous Meningitis and ended fatally. The after histories of the two recovered cases are as follows :—

(1) Female, aged 24. Treated in Hospital for four weeks. Three months after discharge she was reported to show no after-effects except slight irritability and occasional headaches.

(2) Male, aged 8 years. Treated in Hospital for six weeks. Five months after discharge he still showed abnormal mental symptoms, was very unruly, told lies and appeared to have lost his memory. Stated to be improving and had returned to School.

Cancer.—(Table XXXVII.)—The mortality from Cancer remains about the same as last year, 166 deaths being recorded as against 172 in 1930. The proportional frequencies of the sites of Cancer expressed as rates per thousand of all deaths from Cancer is set forth in the following table and compared with the same rates for the whole of England and Wales. It will be seen that the deaths of males approximate closely to those for the whole country under each class, but the proportional mortality in females in Wolverhampton from Cancer of the breast is considerably greater than the average.

Prevention of Blindness.—No fresh action has been taken during the year under Section 66 of the Public Health Act, 1925, for the prevention of blindness or for the treatment of persons suffering from any disease or injury to the eyes. There are 162 known cases of blindness in the Borough. Of these 6 are attending school, 9 are receiving training, 45 are employed, 86 are unemployable and 16 are in institutions.

Particulars of the after history of the notified cases of Ophthalmia Neonatorum are given on page 47.

BOROUGH HOSPITAL FOR INFECTIOUS DISEASES.

(Table XXXIX).

The Hospital has again been moderately full at all times during the year and at certain times the accommodation was inadequate. An increase of 22 in the number of patients admitted as Diphtheria was notable following on the large increase in 1930.

Immunization against Diphtheria in non-Diphtheritic patients has been continued.

Nine members of the staff were Schick tested and three were subsequently immunized.

Scarlet Fever.—Scarlet Fever continues to be, on the whole, a fairly mild disease in Wolverhampton. Most patients receive Scarlatinal Anti-Streptococcus Serum on admission unless the acute stage of the disease has subsided. No case was deemed severe enough to warrant the intravenous injection of Serum.

Of 231 cases of notified Scarlet Fever admitted to the Hospital, 20 were found not to be suffering from the disease. Three patients died. One had Diphtheria on admission and this was the cause of death. The second also was not a case of Scarlet Fever, and the patient died from Pneumonia. The third died from Pneumonia, and was a very doubtful Scarlet Fever patient on admission. Regarding this last as a definite case there was one death only from this disease giving a corrected mortality rate of 0·47%.

There were three return cases—a return case rate of 1·4%.

Complications were less common than in the previous year. Uncomplicated cases are usually discharged at the end of three weeks.

Complications : —

Adenitis	...	...	9
Otorrhœa	...	...	7
Nephritis	...	...	2
Albuminuria	...	...	2
Rhinorrhœa	...	...	15
Cardiac ...	...	...	2
Scarlatinal Rheumatism	...	...	1

Diphtheria.—There was a further increase in the number of Diphtheria patients admitted to Hospital during the year.

Once again a relatively large number were found not to have Diphtheria on admission. Of 206 notified cases the diagnosis was revised in 47. This is due, as stated in this Report for the year 1930, to the importance with which a positive swab is still regarded, for in 29 of the 47 cases a positive swab result had been obtained before admission. In most cases there was little local evidence of Diphtheria. To delay treatment in a clinical case of Diphtheria until the result of swab examination is known often proves fatal to the patient. (*vide infra*).

There were altogether 13 deaths from Diphtheria, including 2 sent to Hospital as some other disease. This represents a corrected mortality rate of 8·1%. In all except two, notification had been delayed at least until the fourth day of disease and this was undoubtedly a deciding factor of the fatal issue in most cases. In several the swab result had been awaited and antitoxin not given until the child was in Hospital. In half the cases death took place within 48 hours of admission, and two patients died within two hours. It is exceptional for Diphtheria patients to be discharged within six weeks of admission.

Complications :—

Otorrhœa	...	...	5
Nephritis	...	...	2
Albuminuria	...	...	5
Cardiac ...	...	...	19
Paralysis :			
Ocular	...	...	3
Pharyngeal	...	...	2
Palatal	...	...	22

There were 17 patients suffering from Laryngeal Diphtheria, four requiring tracheotomy. Of these two died. Antitoxin was administered in large doses, intravenously, in nine cases.

Other Diseases.—The following diseases were also treated at the Borough Hospital during the year :—Catarrhal Jaundice, Paratyphoid Fever, Erysipelas, Measles, Whooping Cough, Chicken Pox, Rubella and Ileo-Colitis. There were two deaths from Ileo-Colitis.

Tuberculosis.—(Tables XL, XLI, XLII).—The new cases of Tuberculosis notified during the year numbered 235 and were made up as follows :—

PULMONARY TUBERCULOSIS.		NON-PULMONARY TUBERCULOSIS.	
Males	Females	Males	Females
116	93	18	8

These figures form a very considerable increase over those for last year, which only amounted to a total of 161. The increased incidence of this disease during the year is not confined to any particular age group or sex, but is spread over the whole. As might be expected, the age groups which normally have the highest incidence of the disease are specially affected by the increase, but there is also a considerable addition to the numbers of notified cases at both extremes of life. The above is only true for the pulmonary form of the disease, as the non-pulmonary cases are practically the same as last year. The usual details regarding the efficiency or otherwise of the notification of Tuberculosis are given in Table XLI which also records the interval elapsing between the date of notification and death in those cases which terminated fatally. Twenty-nine of the fatal cases had not been previously notified and in a further 25 cases the interval elapsing between notification and death was less than one year. Twenty-two of the notified cases died in institutions, and it is possible that the medical officers attached thereto were under the impression that these cases had been notified before admission.

The total deaths from all forms of Tuberculosis numbered 123 as compared with 120 last year. As will be seen from the following Table, the Tuberculosis death rate has been practically stationary for the past three years :—

Year.	Death Rate from Tuberculosis, all forms (per 1,000 population).	
1926	...	1·08
1927	...	·87
1928	...	·78
1929	...	·92
1930	...	·91
1931	...	·93

No action became necessary under the Public Health (Prevention of Tuberculosis) Regulations, 1925.

At the end of 1931 the number of active cases of Tuberculosis on the T.B. register for Wolverhampton was as follows :—

Pulmonary Tuberculosis	...	1026
Other Forms	... ..	128
		<hr/>
Total	...	1154
		<hr/>

During the year a further series of cases of Tuberculosis were referred to the Housing Committee for preferential treatment on account of unsatisfactory housing conditions and 18 of these families were given a Corporation house. The usual routine examinations of milk samples for the presence of living tubercle bacilli were carried out, and the results are recorded in Table XXIV.

Venereal Diseases.—The Venereal Diseases scheme has already been given in full in previous reports. It includes a special clinic at the Royal Hospital which is open every day, in-patient treatment at the Royal Hospital as required, and a hostel for infected women at Cleveland House. Taking first the whole work of the treatment centre (which deals with Staffordshire and Shropshire cases as well as with those in Wolverhampton) certain important facts emerge from Table XLIV. (a) There is an enormous difference in the numbers of males and females suffering from Gonorrhœa who present themselves for treatment. The figures this year are 184 males and 71 females. It is quite evident from this that the clinic is not getting in touch with infected women to the extent that is desirable. Promiscuity is, for all practical purposes, the only way in which this disease is spread, and it is illogieal to suppose that the risks of exposure to infection are greater in one sex than in the other. (b) The second point of interest is the proportion of cases that defaulted before completion of treatment. There were 158 new cases of Syphilis dealt with during the year, with 23 defaulters (15%) and 266 new cases of Gonorrhœa, with 33 defaulters (12½%).

Although the tables for 1931 have not been drawn up on exactly the same lines as those for 1930, a comparison of the two seems to show that the proportion of defaulters in each class is becoming greater. (c) There has been a considerable falling off in the number of new Wolverhampton cases attending the clinic during the year, but those for other districts show little change. The total new cases were 638, and the total attendances amounted to 18,859. The Medical Officer at the centre carried out 7,990 consultations with patients, and also performed all the pathological work enumerated under item 15 of Table XLIV.

METEOROLOGICAL REPORT FOR THE YEAR 1931.

TABLE I.

1931	Mean Pressure of Barometer, at Station Level	Sea Level	Mean Relative Humidity	Mean of Max. and Min. Tem.	Mean undergrnd. Temp.		Absolute Extremes of Temperature			Direction of Wind								Total Rain- fall. In.	
					1 ft.	4 ft.	High- est	Date	Low- est	Date	N.	N.E.	E.	S.E.	S.	S.W.	W.		N.W.
January	29.356	29.872	91	38.0	38.6	42.4	51.5	16th	19.0	7th	6	1	1	...	2	4	5	12	1.50
Feb.	29.339	29.855	89	38.9	39.0	41.6	55.2	25th	29.0	14th	5	2	...	...	2	6	4	9	2.13
March	29.411	29.927	81	39.1	39.5	41.0	63.8	27th	20.5	10th	3	2	5	9	7	2	1	2	.17
April	29.368	29.868	81	44.9	43.6	43.9	68.2	11th	31.2	1st	9	...	...	3	3	3	5	7	3.72
May	29.367	29.847	76	51.9	50.7	45.8	74.5	27th	34.8	4th	2	3	6	2	4	11	2	1	4.07
June	29.510	29.972	77	57.9	56.9	51.8	74.0	21st	41.0	25th	2	...	4	1	4	6	12	1	4.28
July	29.358	29.813	78	59.3	58.8	54.9	74.8	22nd	45.0	21st	4	...	...	1	2	7	11	6	3.55
August	28.464	28.931	79	57.6	57.7	55.6	77.8	4th	41.5	23rd	6	4	8	4	...	3	4	2	5.55
Sept.	29.149	29.624	89	53.3	54.5	53.7	69.5	3rd	35.5	13th	10	3	4	2	3	5	1	2	2.44
Oct.	29.661	30.151	90	47.3	49.8	51.5	69.8	11th	17.5	22nd	7	2	3	2	3	8	5	1	1.04
Nov.	29.315	29.797	91	45.6	45.9	47.1	58.2	4th	31.0	22nd	3	...	1	2	11	10	2	1	3.46
Dec.	29.768	30.273	89	41.0	42.5	45.6	58.5	4th	21.0	19th	5	...	2	4	1	6	9	4	.76

TABLE II.

VITAL STATISTICS DURING 1931 AND 9 PREVIOUS YEARS.

Year.	Population estimated to middle of each year.	BIRTHS. Net.		DEATHS BELONGING TO THE DISTRICT.					Total Deaths in Public Insti- tutions in the District.	Deaths of Non-Residents in the District 8.	Deaths of Residents occurring outside the District. 9.	Total Deaths registered in the District.	
		No. 3 & 4.	Rate. 5.	Under 1 year of age		At all ages		No.				Rate. 7.	
				No. 10.	Rate per 1,000 Births 11.	No. 12.	Rate 13.						
1922	105,700	2,314	22.0	193	83	1,330	12.6	264	239	1,310	12.4	1,937	14.4
1923	106,700	2,277	21.4	173	76	1,250	11.7	219	277	1,308	12.3	1,937	14.4
1924	108,200	2,101	19.4	178	85	1,283	11.9	256	280	1,307	12.1	1,937	14.4
1925	108,800	2,087	19.2	185	89	1,326	12.2	270	332	1,389	12.8	1,937	14.4
1926	110,000	2,079	18.9	148	71	1,245	11.3	279	340	1,310	11.9	1,937	14.4
1927	135,200	2,367	18.2	215	91	1,524	11.7	121	378	1,845	14.2	1,937	14.4
1928	133,900	2,644	19.7	161	61	1,439	10.7	84	360	1,715	12.8	1,937	14.4
1929	134,300	2,529	18.8	153	60	1,747	13.0	83	492	2,155	16.0	1,937	14.4
1930	134,250	2,430	18.1	156	64	1,465	10.9	60	480	1,885	14.0	1,937	14.4
1931	134,400	2,297	17.1	159	69	1,607	11.9	91	422	1,937	14.4	1,937	14.4

AREA OF DISTRICT IN ACRES, 7,105.

Institutions within the Borough receiving sick and infirm persons from without the Borough:—The Royal Hospital; The New Cross Hospital; The Wolverhampton Borough Hospital; The Wolverhampton and Midland Counties Eye Infirmary; The Wolverhampton and District Hospital for Women; The Queen Victoria Nursing Institution.

TABLE III.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1931 (R.G.)

CAUSES OF DEATH.			Net Deaths at the subjoined ages of Residents within the Borough.											
			All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	65 and under 75.	75 and upwards.
All causes	Certified	...	1603	157	39	39	48	69	65	113	171	224	348	330
	Uncertified	...	4	2	...	...	...	...	...	...	1	1	...	...
Typhoid and Paratyphoid Fevers			...	...	...	...	...	...	...	...	...	...	...	...
Measles			6	1	1	2	2	...	...	...	...	...	...	...
Scarlet Fever			1	...	...	1	...	...	...	...	...	...	...	...
Whooping Cough			15	6	5	3	1	...	...	...	...	...	...	...
Diphtheria			12	...	1	3	7	1	...	...	...	...	...	...
Influenza			26	...	...	...	...	2	3	1	3	7	7	3
Encephalitis Lethargica			2	...	...	...	...	1	...	...	...	1	...	...
Cerebro Spinal Fever			2	1	..	...	1	...	...	...	...	...	...	...
Tuberculosis of Respiratory System			105	...	...	...	...	25	16	27	16	13	6	2
Other Tuberculous Diseases			20	4	1	4	3	2	...	...	4	...	2	...
Syphilis			6	1	...	...	...	...	...	2	...	2	...	1
General Paralysis of the Insane, Tabes Dorsalis			11	...	...	..	...	...	1	2	5	2	1	...
Cancer, malignant disease			176	1	...	1	1	2	4	8	41	46	51	21
Diabetes			18	...	...	...	...	1	...	3	1	5	5	3
Cerebral Hæmorrhage, &c.			66	...	...	...	...	...	...	1	7	8	27	23
Heart Disease			335	...	...	...	4	7	7	14	21	57	121	104
Aneurysm			4	...	...	...	...	...	...	...	1	3	...	...
Other Circulatory Diseases			86	...	1	...	...	...	...	...	...	11	32	42
Bronchitis			85	7	...	...	...	...	...	3	3	13	17	42
Pneumonia (all forms)			142	23	19	11	5	8	11	15	18	13	11	8
Other Respiratory Diseases			18	...	...	...	...	...	1	...	7	1	5	4
Peptic Ulcer			15	...	...	...	...	1	2	5	4	3	...	...
Diarrhœa, &c.			29	19	5	1	1	...	1	...	...	1	...	1
Appendicitis			10	...	...	...	3	2	...	1	2	...	1	1
Cirrhosis of Liver			2	...	...	...	...	...	...	...	2	...	...	...
Other Diseases of Liver, etc.			7	...	...	...	...	...	1	...	...	1	3	2
Other Digestive Diseases			40	5	1	1	2	2	2	2	5	8	8	4
Acute and Chronic Nephritis			36	...	...	...	...	1	4	1	5	9	11	5
Puerperal Sepsis			1	...	...	...	...	...	1	...	...	...	...	...
Other Puerperal Causes			4	...	...	...	...	...	2	1	1	...	...	...
Congenital Debility, Premature Birth, Malformation, etc.			82	80	1	...	1	...	...	...	...	...	...	...
Senility			42	...	...	...	...	...	...	...	...	1	9	32
Suicide			15	...	...	...	...	...	3	4	1	2	5	..
Other Violence			55	1	2	5	6	5	2	4	6	4	7	13
Other Defined Diseases			132	10	2	6	11	9	4	19	19	14	19	19
Causes ill-defined or unknown			1	...	...	1	...	...	...	...	...	...	...	...
Totals			1607	159	39	39	48	69	65	113	172	225	348	330

TABLE IV.

VITAL STATISTICS IN WARDS, 1931.

WARD	Adjusted Population	Nett Births	Birth Rate	Nett Deaths	Death Rate	Deaths under 1 year	Infant Mortality Rate	Deaths from Diarrhoea under 2 years	Diarrhoea Death Rate per 1,000 Births	Deaths from Phtthisis	Rate	Deaths from Tuberculosis all forms	Rate	Deaths from Respiratory diseases, excluding Phtthisis	Rate
St. Peter ...	5814	89	15.3	78	13.4	1	11	...	...	7	1.20	7	1.20	9	1.55
St. Mary ...	6768	121	17.9	85	12.6	7	58	...	...	6	0.89	6	0.89	11	1.63
St. James ...	7883	232	29.4	129	16.4	23	100	1	4.31	14	1.71	19	2.41	20	2.54
St. Matthew	9370	182	19.4	132	14.1	15	82	5	27.47	6	0.64	8	0.85	19	2.03
St. George...	12056	271	22.5	163	13.5	23	85	1	3.69	12	1.00	15	1.24	24	1.99
Heath Town	12720	198	15.6	149	11.7	15	76	3	15.15	12	0.94	12	0.94	18	1.42
Blakenhall & St. John ...	12847	208	16.2	175	13.6	23	111	1	4.81	10	0.78	12	0.93	26	2.02
Graiseley ...	13780	174	12.6	159	11.5	14	80	...	...	12	0.87	16	1.16	17	1.23
St. Mark & Merridale...	10885	159	14.6	129	11.8	4	25	1	6.29	7	0.64	8	0.73	13	1.19
Park ...	9166	104	11.3	88	9.6	7	67	1	9.62	4	0.44	4	0.44	5	0.55
Dunstall ...	11893	124	10.4	137	11.5	6	48	...	...	5	0.42	5	0.42	13	1.09
Upper Penn	5796	72	12.4	53	9.1	3	42	...	...	3	0.52	4	0.69	5	0.86
Bushbury ...	15422	363	23.5	129	8.4	18	50	1	2.78	5	0.32	7	0.45	15	0.97
Borough ...	134,400	2297	17.1	1606	11.9	159	69	14	6.10	103	0.77	123	0.92	195	1.45

TABLE V.

WARD	Adjusted Population 1931	Net Births	Birth Rate	Net Deaths	Death Rate	Deaths under 1 year	Infant Mortality Rate	Deaths from Diarrhoea under 2 years	Diarrhoea Death Rate per 1,000 Births	Deaths from Phtthisis	Rate	Deaths from Tuberculosis all forms	Rate	Deaths from Respiratory diseases, excluding Phtthisis	Rate
St. Peter ...	5814	475	15.9	394	12.6	27	57	3	6.32	25	0.80	29	0.93	52	1.67
St. Mary ...	6768	602	16.4	397	10.8	37	61	7	11.63	30	0.82	32	0.88	64	1.78
St. James ...	7883	1183	29.2	566	14.0	98	83	12	10.15	47	1.16	64	1.58	105	2.59
St. Matthew	9370	1076	22.3	646	13.4	110	102	34	31.60	42	0.87	54	1.12	111	2.30
St. George...	12056	1272	19.9	665	10.4	88	69	6	4.72	45	0.70	51	0.80	101	1.58
Heath Town	12720	1094	16.4	703	10.5	88	80	13	11.88	41	0.61	52	0.78	109	1.63
Blakenhall & St. John...	12847	941	13.8	769	11.3	67	71	8	8.50	47	0.69	55	0.81	111	1.63
Graiseley ...	13780	871	12.7	703	10.2	45	51	1	1.15	53	0.77	65	0.94	106	1.54
St. Mark & Merridale...	10885	654	12.1	631	11.7	37	57	5	7.65	33	0.61	37	0.69	78	1.45
Park ...	9166	831	18.4	441	9.7	32	39	3	3.61	11	0.24	13	0.29	53	1.17
Dunstall ...	11893	760	13.0	603	10.3	30	39	...	...	42	0.72	48	0.82	79	1.35
Upper Penn	5796	279	11.3	205	8.3	7	25	...	...	6	0.24	9	0.37	17	0.69
Bushbury ...	15422	1837	28.2	524	8.0	102	56	5	2.72	32	0.49	45	0.69	79	1.21
Borough ...	134,400	11,875	17.7	7247	10.8	768	65	97	8.17	454	0.68	554	0.82	1,065	1.58

TABLE VI. BACTERIOLOGICAL EXAMINATIONS.

	Positive.				Negative.				
	Borough Hospital	Other Institutions	Medical Practitioners	Total	Borough Hospital	Other Institutions	Medical Practitioners	Total	Total
For Diphtheria Bacilli.	48	19	85	152	578	127	431	1136	1288
For Virulence Tests ...	9	...	...	9	7	...	...	7	16
For Hæmolytic Streptococci. ...	1	...	1	2	...	...	...	...	2
For Tubercle Bacilli. Sputum ...	...	6	25	31	...	38	157	195	226
Others ...	...	...	2	2	...	...	...	...	2
Totals ...	58	25	113	196	585	165	588	1338	1534

TABLE VII.

DEATHS UNDER 1 YEAR, ARRANGED ACCORDING TO WEEKS AND MONTHS.

CAUSE OF DEATH.		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	1-3 months	3-6 months	6-9 months	9-12 months	Total Deaths under 1 year
All Causes {	Certified ...	42	13	6	10	71	32	21	18	15	157
	Uncertified ...	2	...	...	...	2	...	...	...	...	2
{	Enteric Fever ...	...	...	...	...	...	...	...	...	...	...
	Small Pox ...	...	...	...	...	...	...	...	...	...	...
{	Measles ...	...	...	...	...	...	...	...	...	1	1
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
{	Whooping Cough ...	...	...	...	...	...	1	1	...	3	5
	Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...
{	Influenza ...	...	...	...	...	...	...	...	...	...	...
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...
{	Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	1	1
	Abdominal Tuberculosis ...	...	...	...	...	...	...	...	...	1	1
{	Other Tuberculous Diseases ...	...	...	...	...	...	1	...	1	...	2
	Meningitis (not tuberculous) ...	...	...	...	...	...	...	2	...	...	2
{	Convulsions ...	2	...	...	...	2	2	2	1	1	8
	Laryngitis ...	...	...	...	...	...	...	...	1	...	1
{	Bronchitis ...	...	...	...	...	...	1	2	...	3	6
	Pneumonia (all forms) ...	...	1	...	...	1	6	3	9	...	19
{	Diarrhœa ...	...	...	...	...	...	...	...	...	...	...
	Enteritis ...	...	...	2	2	4	2	2	1	2	11
{	Gastritis ...	...	...	...	...	...	...	...	...	...	...
	Syphilis ...	...	...	...	...	...	...	...	1	...	1
{	Rickets ...	...	...	...	...	...	...	...	...	...	...
	Suffocation (overlying) ...	...	...	...	...	...	...	...	...	...	...
{	Injury at birth ...	2	...	...	...	2	...	...	...	...	2
	Atelectasis ...	5	...	...	...	5	...	...	...	...	5
{	Congenital Malformations ...	2	2	...	2	6	3	1	...	1	11
	Premature Birth ...	27	8	3	3	41	3	...	...	...	44
{	Atrophy, Debility and Marasmus ...	5	2	...	3	10	10	6	2	...	28
	Other Causes ...	1	...	1	...	2	3	2	2	2	11
Totals ...		44	13	6	10	73	32	21	18	15	159

TABLE VIII. DIARRHOEA AND ENTERITIS.

Year.	Deaths under 2 years.	Death Rate per 1,000 births.	
		Wolverhampton.	England and Wales.
1922	15	6·48	6·20
1923	31	13·61	7·70
1924	20	9·52	7·30
1925	23	11·02	8·40
1926	17	8·18	8·70
1927	25	10·56	6·30
1928	27	10·21	7·00
1929	17	6·72	8·10
1930	16	6·58	6·00
1931	14	6·10	6·00

TABLE IX.

MIDWIVES.

No. of midwives on Register	...	...	48
No. of trained midwives working independently	...	...	30
No. of trained midwives in Institutions	...	...	16
No. of untrained midwives working independently	...	...	2

NOTIFICATIONS RECEIVED FROM MIDWIVES.

(a) Of sending for medical assistance	...	...	765
(b) Of still births	...	...	25
(c) Of proposal to substitute artificial feeding	...	...	34
(d) Of being a source of infection	...	...	20

WORK OF THE SUPERINTENDENT OF MIDWIVES.

(a) No. of routine visits to midwives	...	...	248
(b) No. of special visits to midwives	...	...	59
(c) No. of special visits to patients	...	...	11
(d) No. of visits <i>re</i> still births	...	...	36
(e) No. of visits <i>re</i> Puerperal Fever and Puerperal Pyrexia cases	...	...	13

TOTAL VISITS 367

TABLE X.
CONDITIONS FOR WHICH DOCTORS WERE CALLED IN BY MIDWIVES.
PREGNANCY.

Ante-partum Hæmorrhage	...	...	...	22
Abortion	...	...	...	6
Miscarriage	...	...	...	8
Toxæmias (a) Unclassified	...	...	19	} 20
(b) Eclampsia	...	...	1	
Indefinite diagnosis	...	...	...	35

LABOUR.

Abnormal presentation	...	...	29
Prolonged 1st stage	...	...	16
Prolonged 2nd stage	...	...	87
Obstructed labour	...	...	19
Uterine inertia	...	...	18
Contracted pelvis	...	...	2
Placenta prævia	...	...	2
Unsatisfactory general condition of Mother	12
Indefinite diagnosis	23

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Post-partum Hæmorrhage	14
Retained and Adherent Membranes	23
Ruptured Perineum	115
Still-births	...	...	...	25

PUERPERIUM.

Puerperal rise of Temperature	...	...	...	27
Subinvolution	...	...	...	2
Indefinite Diagnosis	...	...	...	16
Death of Mother	...	...	...	1

INFANT.

Ophthalmia	...	...	...	140
Convulsions	...	...	...	1
Atrophy, Debility and Marasmus	...	...	...	19
Congenital Malformation	...	...	...	12
Birth Injury	...	...	...	1
Icterus Neonatorum	...	...	...	2
Pemphigus	...	...	...	—
Death of Infant	...	...	...	17
Unclassified (Indefinite Diagnosis)	...	...	...	51

TABLE XI.

MATERNITY AND CHILD WELFARE CENTRES.

	Ward Street	Lea Road	Park Lane	Stafford Street	Moseley Village	Totals
INFANTS						
No. of Sessions	126	128	131	132	50	567
New Cases under 1 year ...	349	323	327	229	39	1267
New Cases over 1 year ...	34	44	89	30	6	203
Attendances under 1 year...	4115	4151	4350	3450	691	16757
Attendances over 1 year ...	2576	2650	2567	3002	963	11758
Total Attendances ...	6691	6801	6917	6452	1654	28515
Average Attendances per Session	53	53	53	49	33	...
EXPECTANT MOTHERS						
No. of Sessions	51	47	50	32	...	180
New Cases	129	131	95	47	...	402
Total Attendances ...	564	584	378	223	...	1749
Average Attendances per Session	11·1	12·4	7·6	7·0	...	...

TABLE XII.

DENTAL CLINIC.

Sessions	Attendances	Extractions	Dentures Supplied
50	418	843	34

TABLE XIII.

OPHTHALMIA NEONATORUM.

CASES.			Vision un- impaired.	Vision impaired.	Total Blindness.	Deaths.
Notified.	Treated.					
	At Home.	In Hospital				
66	30	35 (out- patients) 1 (in- patient)	66	...	...	...

TABLE XIV. MATERNITY AND CHILD WELFARE.
WORK OF HEALTH VISITORS, 1931.

District.	First Visits.	Re-visits.	Visits to Toddlers.	Ineffective Visits.	Special Visits.	Clinics.	Total.
N.	274	456	1107	213	147	180	2377
M.V.	133	377	943	62	188	155	1858
N W.	196	563	1188	259	288	148	2642
E.	277	479	841	218	340	194	2349
N.E.	242	650	1425	143	275	136	2871
S.E.	337	404	923	238	247	168	2317
S.W.	380	653	1546	184	335	127	3225
S.	179	341	633	200	185	68	1606
H.T.	204	726	1216	288	243	175	2852
TOTAL	2222	4649	9822	1805	2248	1351	22,097

TABLE XV.
MATERNITY AND CHILD WELFARE.
BIRTHS

Births Notified				Male	Female	Sex not stated	Total
By Midwives	...	...	...	1059	1066	6	2131
„ Doctors	...	...	...	297	247	6	550
„ Others	...	...	...	2	2	...	4
							2685
STILL-BIRTHS							
By Midwives	...	...	...	45	40	1	86
„ Doctors	...	...	...	15	19	...	34
„ Others ...	...	...	...	...	...	...	...
							120

TABLE XVI.

CANAL BOATS ACTS, 1877-1884.

Number of boats registered during 1931	...	...	1
„ „ inspected „ „	...	...	382
„ infringements discovered	...	...	93
„ notices issued	...	...	62
„ „ outstanding at end of year	...	...	3
„ cabins disinfected	...	...	Nil.

WORKSHOPS.

TABLE XVII. A.—INSPECTIONS.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions (4)
Factories (includg. Factory Laundries) Workshops („ Workshop „) Workplaces	3859	59	Nil
Total			

B.—DEFECTS FOUND.

Particulars. (1)	Number of defects.			Prosecu- tions. (5)
	Found. (2)	Remed- ied. (3)	Referred to H.M. Inspector of Factories (4)	
NUISANCES UNDER THE PUBLIC HEALTH ACTS :--				
Want of cleanliness	82	101	...	...
Want of ventilation	1	1	...	...
Overcrowding ... ..	...	1	...	...
Want of drainage of floors	1	...	...	...
Other Nuisances	68	159	...	...
* Sanitary Accommodation { insufficient unsuitable, or de- fective not separate for sexes	32	34	...	...
	1	1	...	...
Total	185	297	...	...

* Section 22 of the Public Health Acts Amendment Act, 1890, is in force, and the standard aimed at is that of the Order of February, 1903.

TABLE XVII.—*Continued.* C.—HOME WORK.

* NATURE OF WORK.	OUTWORKERS' LISTS, SEC. 107.					
	Received from Employers.					
	Twice in the year.			Once in the year.		
	Lists.	Out Workers.		Lists.	Contractors.	Workmen.
		Contractors.	Workmen.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Wearing Apparel—						
Making, &c. ...	6	15	12	1	...	...
File Cutting ...	...	...	...	1	1	1
Bedding Manufactrs. ...	...	...	...	1	1	1
Lock Makers ...	...	...	...	1	Out of District.	
Totals ...	6	15	12	4	2	2

* When the return is "nil" the item is omitted from the table.

D.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)	Number (2)
Boat and Shoe Makers and Repairers, 80 ; Bakehouses, 76 ; Lockmakers, 21 ; Tailors, 54 ; Dressmakers, 48 ; Milliners, 21 ; Cabinet Makers and Upholsterers, 19 ; Smiths, 15 ; Keymakers, 1 ; Spectacle Frame Makers, 7 ; Builders, &c., 50 ; File Cutters, 7 ; and various other trades, 196 ...	595

E.—OTHER MATTERS.

Class (1)	Number (2)
MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—	
Failure to affix Abstract of Factory and Workshop Act ...	1
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts ...	9
Others ...	9
Underground Bakehouses (s. 101) :—	2
Certificates granted during the year	...
In use at the end of the year ...	1

TABLE XVIII.
SUMMARY OF ROUTINE INSPECTION WORK.

	DISTRICTS.						Work-shops	Totals
	N.W.	W.	S.W.	N.E.	E.	S.E.		
Investigations made into Notifiable Infectious Diseases	94	60	97	215	110	189	...	765
Investigations made into other Infectious Diseases	84	63	152	136	140	114	...	689
Number of Houses Inspected	9	176	11	386	353	147	...	1082
Re-inspections. Calls made, &c. ...	4674	1990	2374	621	4587	4889	3083	22218
Smoke Observations ...	...	20	9	...	74	4	24	131
Inspections under Housing etc., Act	...	21	40	15	80	...	...	156
of Houses-let-in-Lodgings	...	58	82	...	33	...	...	173
" Canal Boats	...	...	1	...	...	...	372	373
" Workshops	...	...	...	...	...	...	67	67
" Bakehouses	83	270	200	30	107	68	...	758
" Cowhouses	45	2	28	9	54	...	...	138
" Dairies and Milkshops	504	813	405	47	109	310	...	2188
" Slaughter-houses	3	235	297	637	541	749	...	2462
" Offensive Trades	177	261	372	43	140	116	9	1118
" Stables and Stable-yards	11	47	121	1	10	34	34	258
" Courts, Out-door Closets, Drains, &c. ...	362	2264	2513	2878	1085	858	632	10592
" Piggeries, Fowls and other animals kept	11	19	64	21	17	15	4	151
" Meat and Food	44	1407	817	1573	1997	1437	...	7275
" Miscellaneous	119	132	157	20	107	240	100	875
Total Inspections	6239	7871	7789	6640	9583	9202	4331	51655
References to:—								
Cleansing Department	...	...	7	1	...	1	...	9
Borough Engineer's Department	5	21	28	...	32	20	3	109
Water Engineer's	14	12	14	7	7	11	3	68
Totals	19	33	49	8	39	32	6	186

TABLE XIX. SANITARY DEFECTS REPORTED.

		N.W.	W.	S.W.	N.E.	E.	S.E.	Work-shops.	Totals.
HOUSES AND WORKSHOPS:—									
1. Requiring cleansing and limewashing	...	23	57	68	45	63	83	68	407
2. Dampness	...	39	24	110	29	178	108	1	489
3. Dilapidations	...	62	95	125	60	174	266	5	787
4. Overcrowding	...	17	17	21	8	29	53	...	145
5, 6, 7, 8, 10. Defective or insufficient closet accommodation	...	325	91	474	478	28	210	30	1,636
9, 36. Defective urinals	...	1	1	...	...	...	...	1	3
11, 12, 13, 14, 15, 16, 27. Defective sanitary fittings	...	18	33	28	5	9	22	1	116
35. Offensive accumulations...	...	7	8	17	4	12	7	13	68
17, 18, 19, 21, 22, 23. Defective drains	...	11	25	4	9	10	28	1	88
20. Drains found stopped	...	38	49	60	31	60	51	10	299
24. Defective fall pipes	...	18	42	31	7	26	31	...	155
25. Defective eaves spouting	...	29	71	56	8	64	58	5	291
26. Defective roofs	...	26	52	76	36	140	187	4	521
GENERAL:—									
28. Defective yard surfaces	...	11	50	17	1	8	6	2	95
29, 30. Defective outbuildings	...	42	252	131	30	137	137	31	760
31, 32. Defective ash receptacles	...	182	65	67	10	34	304	4	666
33, 34. Infringements of Bye-laws	...	2	12	3	4	6	8	5	40
MISCELLANEOUS	...	17	57	60	27	58	76	4	279
Totals	...	868	1,001	1,348	792	1,036	1,635	185	6,865

TABLE XX. NOTICES SERVED DEALING WITH THE AFORESAID SANITARY DEFECTS.

FORM OF NOTICES.	DISTRICTS.						Work-shops.	Totals.
	N.W.	W.	S.W.	N.E.	E.	S.E.		
Intimation (Preliminary) ...	67	102	136	81	290	278	32	986
Statutory ...	308	290	558	296	374	533	27	2386
TOTALS ...	375	392	694	377	664	811	59	3372
Prosecutions :								
Non-compliance with Notices (Premises) ...	8	...	3	3	2	7	...	23
Slaughtering on Unlicensed Premises ...	...	...	...	6	...	...	...	6
Bye-laws Contraventions ...	1	...	...	...	...	...	...	1
TOTALS ...	9	...	3	9	2	7	...	30

TABLE XXI. IMPROVEMENTS MADE IN COMPLIANCE WITH NOTICES SERVED.

IMPROVEMENTS.		DISTRICTS.						Work-shops.	Totals.
		N.W.	W.	S.W.	N.E.	E.	S.E.		
Drains	Reconstructed ..	1	2	5	377	7	1	3	396
	Improved or Repaired ...	399	175	460	52	79	198	9	1372
	Traps fixed ...	10	13	195	357	2	5	20	602
Sinks	Provided ...	1	10	7	1	1	...	...	20
	Improved or Repaired ...	1	135	3	...	15	9	...	163
Pan Closets altered to Water Closets		...	...	...	...	...	...	...	...
Waste-water Closets altered to W.C's		333	41	383	331	...	172	...	1260
Privy Middens altered to W.C's ...		...	...	...	...	...	...	...	...
Water Closets	Constructed ...	3	1	...	23	...	1	14	42
	Improved or Repaired ...	23	55	11	22	18	30	30	189
Ashpits	Ash Bins provided ...	28	49	41	54	7	30	1	210
	Altered to Bin ...	161	23	32	46	...	287	...	549
	Improved or Repaired ...	...	...	...	...	2	2	...	4
Courts, Yards and Channels		...	...	...	...	...	...	...	...
Water	Relaid or Repaired ...	345	211	445	2	13	40	7	1063
	Wells Closed ...	...	...	...	1	...	1	...	2
	Water laid on ...	1	5	4	2	2	27	1	42
Houses	Soft Water Cisterns Cleansed ...	...	...	6	...	...	14	...	20
	Cleansed or Limewashed ...	16	96	121	84	94	152	11	574
	Generally Repaired ...	64	178	186	97	637	325	2	1489
	Lighted or Ventilated ...	10	57	...	5	7	20	1	100
	Spouting, etc., provided or repaired	36	203	128	39	322	112	2	842
Overcrowding Abated ...		15	8	17	8	12	38	1	99
Out-door Premises Limewashed ...		5	438	569	41	190	119	90	1452
" " Improved or Repaired ...		27	396	625	252	52	121	8	1481
Animals Removed ...		...	8	...	4	7	6	...	25
Offensive Accumulations Removed ...		4	83	102	46	88	96	39	458
Other Amendments or Nuisances Abated ...		16	26	30	50	54	27	58	261
TOTAL IMPROVEMENTS ...		1499	2213	3370	1894	1609	1833	297	12715
TOTAL PREMISES IMPROVED ...		747	638	849	1043	977	1092	111	5457

TABLE XXII.

INVESTIGATION OF ATMOSPHERIC POLLUTION.

RESULTS OBTAINED BY DEPOSIT GAUGE IN THE CENTRE OF
WOLVERHAMPTON.

	INSOLUBLE MATTER TONS PER SQ. MILE.			SOLUBLE MATTER TONS PER SQ. MILE.			INCHES.
	Tar.	Carbonaceous matter other than Tar.	Ash.	Sulphates.	Chlorides.	Ammonia.	Rainfall.
JANUARY	0·20	1·56	5·15	1·33	0·79	0·13	1·50
FEBRUARY	0·41	4·82	16·04	...	...	...	2·13
MARCH	0·51	3·80	16·04	...	...	...	·17
APRIL	0·40	3·26	10·25	2·09	1·25	0·23	3·72
MAY	0·38	2·19	11·73	...	...	...	4·07
JUNE	0·28	2·19	9·95	...	...	...	4·28
JULY	0·28	2·50	7·11	1·56	0·43	0·05	3·55
AUGUST	0·28	2·24	11·32	...	...	...	5·55
SEPTEMBER	0·18	1·66	4·31	...	...	...	2·44
OCTOBER	0·69	6·04	11·78	2·70	0·59	0·10	1·04
NOVEMBER	0·69	2·78	5·18	...	...	...	3·46
DECEMBER	0·41	2·17	6·45	...	...	...	·76
TOTAL	4·71	35·21	115·31	7·68	3·06	0·51	32·67
MONTHLY AVERAGE	·39	2·93	9·61	1·92	·76	·13	2·72

WOLVERHAMPTON HOUSING CONDITIONS, 1931.

TABLE XXIII.

Number of New Houses erected during the year:—

With State Assistance under the Housing Acts :

By the Local Authority :—

(a) Under the Act of 1925	...	...	...	...	Nil.
(b) Under the Act of 1930	...	...	...	...	10
(c) Under the Act of 1924	...	...	...	...	269
(d) For other purposes	...	...	...	...	Nil.

By other bodies or persons (no subsidy)	196
---	-----	-----	-----	-----	-----

I—INSPECTION OF DWELLING HOUSES DURING THE YEAR.

(1) (a) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	...	1328
(b) Number of inspections made for the purpose	...	...	...	...	1328
(2) (a) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	...	156
(b) Number of inspections made for the purpose	...	...	...	...	156
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	56
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	...	...	807

II.—REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	1047
---	-----	-----	-----	-----	------

III.—ACTION UNDER STATUTORY POWERS DURING THE YEAR

A.—Proceedings under section 17, 18 and 23 of the Housing Act, 1930.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	...	...	...	...	...	Nil.
(2) Number of dwelling houses which were rendered fit after service of formal notices :—						
(a) By Owners	...	...	...	...	...	Nil.
(b) By Local Authority in default of Owners	...	...	...	...	...	Nil.

TABLE XXIII.—*Continued.*

B.—Proceedings under Public Health Acts.

(1) Number of dwelling houses in respect of which Notices were served requiring defects to be remedied	3156
(2) Number of dwelling houses in which defects were remedied after service of formal notices :—	
(a) By Owners	2558
(b) By Local Authority in default of Owners	Nil.

C.—Proceedings under sections 19 and 21 of the Housing Act, 1930.

(1) Number of dwelling houses in respect of which Demolition Orders were made	56
(2) Number of dwelling houses demolished in pursuance of Demolition Orders	2

D.—Proceedings under section 20 of the Housing Act, 1930.

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil.
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil.

E.—Proceedings under section 3 of the Housing Act, 1925.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	Nil.
(2) Number of dwelling houses which were rendered fit after service of formal notices :—	
(a) By owners	Nil.
(b) By Local Authority in default of owners.. ..	Nil.
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close... ..	Nil.

F.—Proceedings under sections 11, 14 and 15 of the Housing Act, 1925.

(1) Number of dwelling houses in respect of which Closing Orders were made	Nil.
(2) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	Nil.
(3) Number of dwelling houses in respect of which Demolition Orders were made	Nil.
(4) Number of dwelling houses demolished in pursuance of Demolition Orders	18

TABLE XXIV.

GRADE "A" MILKS, 1931.

Retailers	...	...	38
Producers	...	...	35
Samples taken	...	...	80
Guinea-pig inoculations	...	...	5

BACTERIOLOGICAL REPORT.

No.	Organisms per c.c.	Coliform Bacilli in 1 c.c.	Coliform Bacilli in 0.1 c.c.	Coliform Bacilli in 0.01 c.c.	Guinea-pig Inoculation for presence of T. B.	REMARKS.
1	46,100	X	X	...		
2	7,100	...	...	...
3	19,800	X	...	...
4	11,100	...	...	...
5	1,700	...	...	...
6	11,600	X	...	...
7	8,400	X	...	...
8	2,800	...	...	...
9	17,600	.	...	...	Negative	
10	3,400	...	...	...
11	400	...	...	...
12	9,800	...	.	...
13	23,000	X	...	...
14	21,000	X	X	...		
15	4,300	X	...	...
16	4,650	...	...	...	Negative	
17	800	...	...	...
18	12,100	..	...	...
19	18,700	X	X	...		
20	9,500	...	...	...
21	7,400	X	X	...		
22	700	...	...	...
23	2,900	..	...	...
24	7,800	...	...	...
25	500	...	...	...
26	900	...	...	...
27	800	...	...	...
28	6,400	...	...	...
29	1,300	...	...	...
30	1,200	X	X	...		
31	1,100	...	...	...
32	11,300	...	...	...
33	3,400	X	...	...
34	1,100	...	...	...
35	500	...	...	...
36	600	...	...	...
37	3,900	...	...	...	Negative	
38	5,200	...	...	...
39	3,400	X	...	...
40	1,100	...	...	...
41	6,400	...	...	...
42	6,400	...	...	...
43	800	...	...	...

TABLE XXIV.

GRADE "A" MILKS, 1931—*Continued.*

BACTERIOLOGICAL REPORT.

No.	Organisms per c.c.	Coliform Bacilli in 1 c.c.	Coliform Bacilli in 0.1 c.c.	Coliform Bacilli in 0.01 c.c.	Guinea-pig inoculation for presence of T. B.	REMARKS.
44	4,900	...	...	...
45	5,800	...	...	...
46	21,000	X	...	...
47	900	...	...	...
48	11,300	...	...	...
49	2,200	...	...	...
50	1,800	...	...	...
51	700	...	...	...
52	1,800	X	...	...
53	1,400	...	...	...
54	600	...	...	...
55	7,400	...	...	...
56	2,300	...	...	...
57	900	...	...	...
58	400	...	...	...
59	6,900	...	...	...
60	2,700	...	...	...
61	900	...	...	...
62	800	...	...	...
63	9,200	...	...	...
64	4,800	X	...	...
65	1,500	...	...	...
66	11,700	...	...	...
67	3,200	...	...	...
68	1,000	...	...	...
69	4,100	...	...	...
70	2,900	...	...	...
71	2,200	...	...	...
72	500	...	...	...
73	800	...	...	...	Positive	
74	1,100	...	...	...
75	700	...	...	...
76	27,600	...	...	...
77	912,000	X	...	...	Negative	Retailer warned.
78	3,400	...	...	...
79	7,600	...	...	...
80	11,600	X	X	...		

TABLE XXV.

GRADE "A" (TUBERCULIN TESTED) MILKS, 1931.

Retailers...	...	...	2
Producers	...	...	6
Samples taken	...	...	17
Guinea-Pig Inoculations	...	...	3

BACTERIOLOGICAL REPORT.

No.	Organisms per c.c.	Coliform Bacilli in 1 c.c.	Coliform Bacilli in 0.1 c.c.	Coliform Bacilli in 0.01 c.c.	Guinea-pig Inoculation for presence of T.B.	REMARKS.
1	19,400	...	...	...
2	8,700	X	X	...		
3	79,000	X	X	X	Negative	
4	19,500	X	...	...
5	6,400	...	...	...
6	136,000	X	X	X		
7	51,500	X	X	...	Negative	
8	600	...	...	...
9	3,400	...	...	...
10	1,100	...	...	...
11	6,350	...	...	...
12	700	...	...	...
13	800	...	...	...
14	5,300	...	...	...
15	3,600	...	...	...	Negative	
16	2,300	...	...	...
17	600	...	...	...

TABLE XXVI.

PASTEURISED AND STERILISED MILKS, 1931.

BACTERIOLOGICAL REPORT.

No.	Organisms per c.c.	Coliform Bacilli in 1 c.c.	Coliform Bacilli in 0.1 c.c.	Coliform Bacilli in 0.01 c.c.	Guinea-pig Inoculation for presence of T.B.	REMARKS.
1	800	...	...	...
2	9,200	...	...	...	Negative	
3	7,800	...	...	...
4	1,100	...	...	...
5	Sterile	...	...	...
6	Sterile	...	...	...	Negative	
7	Sterile	...	...	...	Negative	

TABLE XXVII.

LOOSE AND ORDINARY BOTTLED MILKS, 1931.

BACTERIOLOGICAL REPORT.

No.	Organisms per c.c.	Coliform Bacilli in 1 c.c.	Coliform Bacilli in 0.1 c.c.	Coliform Bacilli in 0.01 c.c.	Guinea-pig Inoculation for presence of T.B.	REMARKS.
1	128,000	X	X	X		
2	13 400	...	...	...	Negative	

MEAT INSPECTION.

REPORT FOR YEAR 1931.

NO. OF ANIMALS SLAUGHTERED,

Cattle	...	...	...	10,275
Calves	...	...	...	2,349
Sheep	...	...	...	40,579
Pigs	...	...	..	18,090

OFFALS DESTROYED.

HEADS—

Actynomycosis	...	18
Hydræmia	...	10
Tuberculosis	...	465
Other Diseases	...	200

LUNGS & HEARTS—

Hydræmia	...	20
Parasitic Disease	...	138
Tuberculosis	...	868
Other Diseases	...	563

LIVERS—

Abscesses	...	45
Cav. Angeioma	...	80
Cirrhosis	...	447
Hydræmia	...	10
Necrosis	...	23
Parasitic Disease	...	897
Tuberculosis	...	380
Other Diseases	...	312

STOMACHS & INTESTINES—

Hydræmia	...	20
Johnes Disease	...	77
Tuberculosis	...	527
Other Diseases	...	370

SPLEENS—

Hydræmia	...	10
Tuberculosis	...	219
Other Diseases	...	210

KIDNEYS—

Hydræmia	...	24
Tuberculosis	...	171

UDDERS—

Tuberculosis	...	123
Other Diseases	...	130

APPROXIMATE WEIGHT.

	Tons	Cwts.	Qrs.	Lbs.
Tuberculosis	17	18	3	1
Other Diseases	12	3	2	9

CARCASSES AND PARTS OF CARCASSES DESTROYED.

Anæmia	...	4	Injury...	...	38
Asphyxia	...	15	Jaundice	...	1
Dropsy	...	33	Pneumonia	...	1
Emaciation	...	15	Peritonitis	...	27
Erysipelas	...	2	Tuberculosis	...	214
Hydræmia	...	12	Other Diseases	...	132

APPROXIMATE WEIGHT.

	Tons	Cwts.	Qrs.	Lbs.
Tuberculosis	12	16	0	3
Other Diseases	15	8	0	14

TABLE XXIX.
FOOD AND DRUGS (ADULTERATION) ACT, 1928. Total number of samples taken during the year 1931:—

Article	Number Examined.			Number Adulterated, &c.		
	Formal	Informal	Total	Formal	Informal	Total
Arrowroot	3	3	...	...	...
Aspirin	2	2	...	...	...
Baking Powder	1	2	3	1	1	2
Beef Suet	3	3	...	...	...
Brawn	2	2	...	...	...
Butter	18	18	...	...	...
Candied Peel	3	3	...	...	...
Cheese	1	1	...	...	...
Cocoa	4	4	...	...	...
Cream	8	8	...	...	...
Dried Fruit	1	1	...	...	...
Dripping	9	9	...	...	...
Epsom Salts	3	3	...	...	...
Fish Paste	1	1	...	...	...
Flour	3	3	...	...	...
Flour, Self-raising	1	9	10	1	2	3
Gelatine	1	1	...	...	...
Glace Fruit	1	1	...	...	...
Golden Syrup	3	3	...	...	...
Ground Almonds	2	2	...	...	...
Ground Ginger	2	2	...	...	...
Honey	2	2	...	...	...
Jam	4	4	...	...	...
Jellies	2	2	...	...	...
Lard	19	19	...	...	...
Lemon Cheese	1	1	...	...	...
Margarine	6	6	...	...	...
Meat Paste	2	2	...	...	...
Milk	128	...	128	12	...	12
Milk, "Appeal to Cow"	2	2	...	...	...
Milk, Dried	4	4	...	...	...
Milk, full cream, Cond.	3	3	...	...	...
Mince-meat	3	3	...	...	...
Miscellaneous	9	9	...	...	...
Mustard	4	4	...	...	...
Sauce	4	4	...	...	...
Sausage	1	6	7	...	...	...
Sherry	1	1	...	...	...
Sweets	8	8	...	...	...
Tea	5	5	...	...	...
Treacle	1	1	...	...	...
Vinegar, Malt	13	13	...	...	...
Vinegar, Table	2	1	3	1	1	2
White Pepper	12	12	...	...	...
TOTALS	133	193	326	15	4	19

TABLE XXX.

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Administrative Action taken regarding Samples reported not to be genuine during the year ending 31st December, 1931.

No. of Sample	Article	Formal or Informal	Nature of Adulteration or Irregularity	Legal Proceedings Instituted		Observations
				Fine Inflicted	Costs Imposed	
				£ s. d.	£ s. d.	
82	Baking Powder	Informal	Deficient in available Carbon Dioxide, 2·40%			See No. 89
89	Baking Powder	Formal	Deficient in available Carbon Dioxide, 2·10%			Stock withdrawn from sale
99	Milk ...	Formal	Deficient in fat 10% ...			Vendor cautioned
100	Table Vinegar	Informal	Artificial Vinegar 100% ...			See No. 112
102	Self-raising Flour	Informal	Sulphate of Lime 0·17% ...			
112	Table Vinegar	Formal	Artificial Vinegar 100% ...			Article withdrawn from sale
117	Milk ...	Formal	Deficient in non-fatty solids 9%			Vendor cautioned
118	Milk ...	Formal	Deficient in non-fatty solids 10·5%			Vendor cautioned
120	Self-raising Flour	Formal	Sulphate of Lime 0·19% ...			Article withdrawn from sale
151	Milk ...	Formal	Deficient in fat 6% ...			Vendor cautioned
155	Milk ...	Formal	Deficient in fat 6% ...			Vendor cautioned
157	Milk ...	Formal	Deficient in fat 3% ...			Vendor cautioned
159	Milk ...	Formal	Deficient in fat 7% ...			Vendor cautioned
162	Milk ...	Formal	Deficient in fat 3% ...			Vendor cautioned
168	Milk ...	Formal	Added Water 1·40% ..			See 1C/Z
178	Milk ...	Formal	Deficient in fat 21% ...	4 0 0	1 17 6	
1C/Z	Milk ...	Formal	Deficient in fat 21% ...	Case Dismissed		Hunt v. Richardson pleaded
184	Milk ...	Formal	Deficient in non-fatty solids 1·5%			Vendor cautioned
213	Self-raising Flour	Informal	Sulphate of Lime 0·2% ...			

TABLE XXXI. ZYMOTIC DISEASES, 1931.

Notifiable Disease.	Notified.	Admitted to Hospital.	Deaths in Hospital.	Deaths at home of cases previously notified
Small Pox ... ..	...	...	...	...
Diphtheria	174*	161	11	1
Scarlet Fever	221†	208	1	...
Enteric Fever	2	2	...	...
Puerperal Fever	9	9	...	...
Puerperal Pyrexia	37	34	...	...
Erysipelas	42‡	23	1	1
Ophthalmia Neonatorum	66	1	...	...
CerebroSpinal Meningitis	...	...	...	...
Encephalitis Lethargica	3	3	...	...
Acute Poliomyelitis ... ..	...	...	...	...
Dysentery	1	1	...	...
Primary Pneumonia	122	65	11	14
Influenzal Pneumonia	19	8	1	3
Others ... ..	...	...	...	...

* 31 of these proved not to be Diphtheria.

†17 „ „ „ Scarlet Fever.

‡ 1 „ „ „ Erysipelas.

TABLE XXXII. DISINFECTION.

Number of rooms disinfected with Formalin 686

Number of rooms sprayed 79

3 Shelters.

Articles disinfected by steam :—

Blankets - 2199. Sheets - 412. Quilts - - - - 292

Pillow Cases 436. Rugs - - 10. Dresses and Suits 522

Pillows - - 646. Mattresses 469. Miscellaneous - - 5241

Total - 10,227.

Library books fumigated 173

TABLE XXXIII. INFECTIOUS DISEASES, YEAR 1931.

NUMBER OF NOTIFICATIONS.															Total Admitted Cases to Notified. Hospital.		DEATHS.										Total Deaths.		
Age-periods.		0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 & Up.			0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 & Up.		
Small Pox
Diphtheria	...	3	3	9	5	10	62	35	14	27	4	2	...	174	161	...	1	1	1	1	1	3	4	1	12
Scarlet Fever	...	1	6	9	17	24	85	38	21	18	2	221	208	1	1
Enteric Fever	1	1	...	2	2
Puerperal Fever	1	7	1	9	9	1	1
Puerperal Pyrexia	2	28	7	37	34
Erysipelas	...	1	1	...	5	10	15	10	42	23	1	1
Ophthalmia Neonatorum	...	66	66	1
Primary Pneumonia	...	1	3	5	3	...	15	9	11	31	21	17	6	122	65	...	...	...	2	...	1	1	3	13	9	23	9	61
Influenzal Pneumonia	...	1	...	...	...	1	1	...	2	6	3	1	4	19	8	...	...	...	...	...	...	...	1	1	...	...	2	4
Encephalitis Lethargica	...	...	...	1	...	...	1	...	...	1	...	...	...	3	3	...	...	...	...	...	...	...	...	1	...	...	...	1
Cerebro Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Acute Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	...	74	12	24	25	35	164	83	52	123	48	36	20	696	515	1	1	1	3	2	4	5	5	16	9	24	11	82	

CASES OF INFECTIOUS DISEASES NOTIFIED IN EACH WARD, YEAR 1931

WARD	Small Pox	Diphtheria	Scarlet Fever	Enteric Fever	Puerperal Fever	Puerperal Pyrexia	Erysipelas	Ophthalmia Neonatorum	Primary Pneumonia	Influenzal Pneumonia	Encephalitis Lethargica	Cerebro Spinal Fever	Acute Poliomyelitis	Dysentery
St. Peter	...	4	17	...	1	1	1	6	3	2	...	...	...	...
St. Mary	...	8	6	...	...	...	3	2	12	1	...	...	...	...
St. James	...	14	13	...	1	2	4	15	16	1	...	...	...	...
St. Matthew	...	10	12	...	...	...	1	2	12	...	...	...	...	...
St. George	...	15	20	...	1	1	6	6	15	1	...	...	...	1
Heath Town	...	11	33	...	2	3	12	8	13	2	...	...	...	...
Blakenhall and St. John's	...	19	9	...	1	2	6	6	12	1	...	...	...	...
Graiseley	...	16	15	...	...	2	3	2	7	3	1	...	...	...
St. Mark's and Meridale	...	16	13	...	...	2	3	5	9	...	...	...	...	...
Park	...	6	5	...	1	20	1	6	6	4	...	...	...	...
Dunstall	...	15	20	1	...	2	1	3	5	3	...	...	...	...
Upper Penn	...	6	4	1	...	1	...	...	7	1	...	...	...	...
Bushbury	...	34	54	...	2	1	1	5	5	...	2	...	...	...
Borough...	...	174	221	2	9	37	42	66	122	19	3	...	...	1

TABLE XXXIV.

TABLE XXXV. DIPHTHERIA.

Year	Cases	Deaths	Case Mortality	Death Rate per 1,000 population	
				WOLVERHAMPTON	England & Wales
1922	29	2	6·9%	0·02	0·11
1923	55	2	3·6%	0·02	0·07
1924	58	5	8·6%	0·05	0·06
1925	48	7	14·6%	0·06	0·07
1926	42	2	4·8%	0·02	0·07
1927	42	5	11·9%	0·04	0·07
1928	60	6	10·0%	0·04	0·06
1929	78	6	7·7%	0·04	0·08
1930	146	11	7·5%	0·08	0·09
1931	174	12	6·9%	0·09	0·07

TABLE XXXVI. WHOOPING COUGH.

Year.	Deaths.	Death Rate per 1,000 population.	
		WOLVERHAMPTON.	England and Wales.
1922	22	0·21	0·16
1923	8	0·08	0·10
1924	11	0·10	0·10
1925	16	0·15	0·15
1926	6	0·05	0·10
1927	57	0·44	0·09
1928	2	0·01	0·07
1929	15	0·11	0·26
1930	14	0·10	0·05
1931	13	0·10	0·06

TABLE XXXVII.

CANCER DEATHS, 1931.

	AGE GROUPS												Total Deaths	
	0—15		15—25		25—45		45—65		65 and upwards					
	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male		
Cancer of the Buccal Cavity ... ..	...	...	...	...	...	...	3	1	3	1	6	2
Cancer of the Pharynx, Oesophagus, Stomach and Annexa ...	...	...	...	...	2	1	16	8	13	11	31	20
Cancer of the Peritoneum, Intestines and Rectum	1	...	...	...	...	2	9	5	7	11	17	18
Cancer of the Female Genital Organs ...	...	...	...	...	...	4	...	12	...	3	...	19
Cancer of the Breast	...	...	...	...	...	...	...	9	...	3	...	12
Cancer of the Skin ...	...	...	1	...	...	...	...	...	3	...	4	...
Cancer of other or unspecified organs ...	2	...	...	1	...	3	13	7	9	2	24	13
TOTALS ...	3	...	1	1	2	10	41	42	35	31	82	84		
	3		2		12		83		66		166			

TABLE XXXVIII.

CANCER—PROPORTIONAL RATE PER 1,000.

	MALE.		FEMALE.	
	England and Wales.	Wolver- hampton.	England and Wales	Wolver- hampton.
Cancer of the Buccal Cavity	98	73	14	24
Cancer of the Pharynx, O e s o p h a g a s, Stomach, Liver and Annexa	369	378	261	238
Cancer of the Perit- oneum, Intestines and Rectum ...	239	207	209	214
Cancer of the Female Genital Organs ...	...	...	196	226
Cancer of the Breast	2	...	194	143
Cancer of the Skin ...	33	49	16	...
Cancer of other or unspecified organs...	259	293	110	155

TABLE XXXIX

BOROUGH INFECTIOUS HOSPITAL

	Scarlet Fever.	Diph- theria.	Other Diseases.	Total.
Cases in Hospital on January 3rd, 1931	35	16	—	51
Cases admitted during year	231	206	24	461
Cases admitted from outside districts	40	37	3	80
Diagnosis revised	20	47	—	67
Return cases	3	—	—	3
Complications :—				
Adenitis	9	2	—	11
Otorrhœa	7	5	—	12
Nephritis	2	2	—	4
Albuminuria	2	5	—	7
Rhinorrhœa	15	6	—	21
Intercurrent diseases				
(e.g. Bronchitis) etc.	3	3	—	6
Miscellaneous	3	10	—	13
Scarlatinal Rheumatism	1	—	—	1
Cardiac	2	19	—	21
Paralysis :				
Ocular	—	3	—	3
Pharyngeal	—	2	—	2
Palatal	—	22	—	22
Operations :—				
Minor Operations	—	—	—	—
Major " { Tracheotomy	—	4	—	4
{ Tonsils & Adenoids	—	—	—	—
Number of Deaths	3	13	2	18
Total cases discharged during the year	239	184	21	444
Average durations of treatment ...	25 days.	35 days.	21 days.	—
Average number of beds occupied	18.6	16.9	1.35	36.8
Cases in Hospital, January 2nd, 1932	24	25	1	50

The above figures refer to all cases admitted to the Borough Hospital and not solely to Wolverhampton ones.

TABLE XL.
TUBERCULOSIS, YEAR 1931.

AGE PERIODS.	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
0—1	...	...	...	1	...	...	1	3
1—5	4	3	2	1	1	...	2	2
5—10	2	1	7	1	...	...	2	...
10—15	3	6	1	1	...	...	...	1
15—20	14	12	2	1	8	5	1	...
20—25	7	14	...	1	5	7	...	1
25—35	24	22	3	2	8	6	...	...
35—45	23	16	...	...	19	8	...	...
45—55	26	8	3	...	13	4	3	1
55—65	7	4	...	...	6	4	1	1
65 & upwards	6	7	...	...	5	4	1	...
TOTALS ...	116	93	18	8	65	38	11	9

TABLE XII.

TUBERCULOSIS, 1931.

Interval elapsing between date of notification and date of death.

	Not notified	Under 1 week	1-4 weeks	4-12 weeks	3-6 months	6-12 months	1-2 years	2-3 years	Over 3 years	Total Deaths
Pulmonary—Males ...	11	4	11	7	7	4	6	5	10	65
Pulmonary—Females...	5	2	3	4	4	8	5	5	2	38
Non-Pulmonary—Males ...	5	4	...	1	1	...	...	...	...	11
Non-Pulmonary—Females ...	8	1	...	...	...	...	...	...	...	9
Totals ...	29	11	14	12	12	12	11	10	12	123

TABLE XLII. TUBERCULOSIS, 1931.

	Pulmonary	Non-Pulmonary	Total
Cases notified	209	26	235
Cases re-notified	8	...	8
Changes of Address	72	8	80
Cases admitted to Institutions :			
Sanatoria... ..	119	4	123
Kinver Hospital	14	...	14
New Cross Hospital	53	5	58
Other Institutions	1	1	2
Cases discharged from Institutions :			
Sanatoria... ..	103	5	108
Kinver Hospital	18	...	18
New Cross Hospital	63	4	67
Other Institutions	3	1	4
First visits to homes by Inspectors	209	26	235
Number of Deaths	103	20	123
New Cases attending T.B. Dispensary and recommended for :	132	6	138
Dispensary Treatment	4	2	6
Domiciliary Treatment	7	...	7
Hospital Treatment	8	1	9
Sanatorium Treatment	113	3	116
Cases transferred to other districts	4	2	6
Cases removed from register "Cured," etc.	48	22	70

TABLE XLIII. ORTHOPÆDIC CLINIC.

New Cases.	Attendances.	Splints, etc., supplied.
110	2585	43

TABLE XLIV.

RETURN relating to all persons who were treated at the Venereal Diseases Treatment Centre at the Royal Hospital, Wolverhampton during the year ended the 31st December, 1931.

	Syphilis.		Soft Chancre.		Gonorrhœa		Conditions other than Venereal.		TOTALS.		
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Totals
1. Number of cases on 1st January under treatment or observation	73	96	2	...	77	37	6	5	158	138	296
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	3	7	...	...	3	4	...	...	6	11	17
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under item 4) suffering from—											
Syphilis, primary	13	5	...	...	...	...	...	...	13	5	18
,, secondary	10	13	...	...	...	...	...	...	10	13	23
,, latent in 1st year of infection	1	4	...	...	...	...	...	...	1	4	5
,, all later stages	34	26	...	...	...	...	...	...	34	26	60
,, congenital	15	21	...	...	...	...	...	...	15	21	36
Soft Chancre ... ..	...	...	...	...	...	...	...	...	...	...	...
Gonorrhœa, 1st year of infection ... ..	...	...	...	...	153	55	...	...	153	55	208
,, later ... ..	...	...	...	...	21	14	...	...	21	14	35
Conditions other than Venereal ... ..	...	...	...	...	...	...	162	91	162	91	253
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection...	3	1	...	...	10	2	...	...	13	3	16
TOTALS of ITEMS 1, 2, 3 and 4 ...	152	173	2	...	264	112	168	96	586	381	967
5. Number of cases discharged after completion of treatment and final tests of cure	17	34	2	...	114	42	163	87	296	163	459
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from—											
Syphilis, primary	5	2	...	...	...	...	...	...	5	2	7
,, secondary ... ..	...	...	...	...	...	...	...	...	...	...	...
,, latent in 1st year of infection ... ..	...	...	...	...	...	...	...	...	...	...	...
,, all later stages	6	7	...	...	...	...	...	...	6	7	13
,, congenital	2	1	...	...	...	...	...	...	2	1	3
Soft Chancre ... ..	...	...	...	...	...	...	...	...	...	...	...
Gonorrhœa, 1st year of infection ... ..	...	...	...	...	25	6	...	...	25	6	31
,, later ... ..	...	...	...	...	...	2	...	...	...	2	2
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure (See item 15)	7	9	...	...	26	4	...	...	33	13	46
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	15	18	...	...	24	16	...	...	39	34	73
9. Number of cases remaining under treatment or observation on 31st December	100	102	...	...	75	42	5	9	180	153	333
TOTALS of ITEMS 5, 6, 7, 8 and 9 ...	152	173	2	...	264	112	168	96	586	381	967

TABLE XLIV.—*Continued*

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		TOTALS.		
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Totals
10. Number of cases in the following stages of Syphilis included in item 6 which failed to complete one course of treatment—											
Syphilis, primary	4	1	...	...	...	...	...	...	4	1	5
„ secondary	1	...	...	...	...	...	...	...	1	...	1
„ latent in 1st year of infection	...	...	...	...	...	...	...	...	...	...	...
„ all later stages	3	1	...	...	...	...	...	...	3	1	4
„ congenital	2	1	...	...	...	...	...	...	2	1	3
11. Number of attendances :—											
(a) for individual attention of the Medical Officers	1876	2294	7	...	2109	991	394	319	4386	3604	7990
(b) For intermediate treatment, e.g., irrigation dressing	103	...	...	...	6302	4424	40	...	6445	4424	10869
TOTAL ATTENDANCES	1979	2294	7	...	8411	5415	434	319	1083	8028	18859
12. In-patients :—											
(a) Total number of persons admitted for treatment during the year ...	1	3	...	...	2	6	1	1	4	10	14
(b) Aggregate number of “in-patient days” of treatment given ...	31	10	...	...	52	263	7	44	90	217	407
	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		TOTALS		
	M	F	M	F	M	F	M	F	M	F	Totals
13. Number of cases of Congenital Syphilis in Item 3 above, classified according to age periods	1	3	...	...	5	12	9	6	15	21	36

TABLE XLIV.—*Continued.*

	Arsenobenzene Compounds.	Mercury.	Bismuth.
14. Chief preparations used in treatment of Syphilis	Novarsenobillon & Sulphostab. 1030 565	Tab. Hy. C Creta. ...	Bismostab. 1121 402
(a) Names of preparations ...			
(b) Total number of injections given (out-patients and in-patients) ...			
(c) Number of injections included in (b) given to patients who on first attendance at this Centre were suffering from primary and secondary syphilis ...			

Examination of Pathological Material.					
	Microscopical.		Serum Tests.		
	For spirochetes	For Gonococci	Wassermann	Others for Syphilis	For Gonorrhœa
15. PATHOLOGICAL WORK :—					
(a) Number of specimens examined at and by the Medical Officer of the treatment centre ...	35	1459	1095	Kahn Test 1006	...
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory ...	...	...	...	...	...

TABLE XLIV.—*Continued.*

STATEMENT showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

	Wolverhampton.	Staffs.	Salop.	Walsall.	Birmingham.	Worcester.	Radnor	Other Authorities.	TOTAL.
A. Number of cases in item 3 from each area found to be suffering from :—									
Syphilis	61	71	1	1	5	2	...	1	142
Soft Chancre ... ..	...	...	...	...	...	...	...	...	...
Gonorrhœa	100	108	8	3	14	4	1	5	243
Conditions other than venereal	112	97	18	5	14	3	1	3	253
TOTAL	273	276	27	9	33	9	2	9	638
B. Total number of attendances of all patients residing in each area	8523	6022	854	126	1944	217	161	1012	18,859
C. Aggregate number of "In-patient days" of all patients residing in each area	105	183	119	...	...	...	...	...	407
D. Number of doses of Arsenobenzene Compounds given in the Out-patient Clinic and In-patient Department to patients residing in each area	432	498	30	20	24	16	...	10	1030

(Signed),

GEORGE MITCHELL, M.D.,

Medical Officer of the Treatment Centre.

February 16th, 1932

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